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NEW CHINA'S PROGRESS IN INTERNAL MEDICINE

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[Following is a translation of selected articles from the Chinese language periodical Chung-hua Nei-k'o Tsa-chih (Chinese Journal of Internal Medicine), Peiping, No. 9, September 1959, pages 813-833.]

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I. A DECADE'S ACHIEVEMENTS OF THE CHINESE MEDICAL ASSOCIATION

Pages 813-815

Fu Lien-chang, president, Chinese Medical Association

Editorial Board of the Chinese Medical Association

It has been ten years since the Chinese People's Republic has been established. During this period, the Chinese people has won glorious victories on the path of socialistic construction under the leadership of the Chinese Communist Party and Chairman Mao. Especially since the great leap forward in 1958, the face of Chinese society has undergone great change, and all activities have seen unprecedented progress. At present, with enthusiastic support and encouragement from the Party, the Chinese people are striving and continuing forward in their socialistic construction with emphasis on quantity, speed, quality, and economy. Economic construction, national defense construction, and cultural construction are placing new demands on scientific workers throughout the nation, and the technological revolution and the ideological revolution have opened up a broad path for China's scientific activities. Our medical workers are faced with a glorious task without historical precedent.

During the past ten years, due to the concern of and education by the Party, and stimulation from the socialistic construction going on, China's medical workers have seen great progress in their political thinking and an increase in their patriotic fervor. After many political movements, particularly the ones related to studying about the main directional path for the establishment of socialism in China, ideological criticism and reorientation, anti-rightism, the socialistic consciousness of the medical workers was obviously heightened, so that the active element in their professional activities is also heightened. Cooperation among medical workers has seen obvious progress. Due to the firm execution of the Party's traditional Chinese medicine policy whereby belittling the heritage of traditional Chinese medicine has been severely criticized, the study and research of traditional Chinese medicine are receiving attention on an overall national scale. Since the November 1958 directive from the Chinese Communist Party and the central government to the party section of the Ministry of Health calling for a conclusive report on the granting of leave to practitioners of western medicine to allow their organization into traditional Chinese medicine study classes has been issued, the study of traditional Chinese medicine has entered a new phase with definite results. Based on the needs of national construction and the people's health, the Twelve Year Plan for Development of a Scientific Technology was initiated in 1956, and planned scientific research in the field of medicine is progressing by stages. Since the 1958 great

leap forward, the policy of chess board like planning and hard work further stimulated the rapid development of scientific activities in medicine, pharmacology, and health. The friendship and professional exchanges between the medical profession in China and those of foreign countries become more frequent and deep with each passing day. These are the continually growing basic conditions achieved by the medical profession in China in all aspects during the past few years.

While the Chinese Medical Association has been established for more than 40 years, it has seen outstanding progress only since the Liberation. Under the leadership of the Party, it has changed its former style of service to a few drastically and become an organization for the people. Especially after the ideological criticism and reorientation movement, our medical workers now have a deeper understanding of the purpose of the Chinese Medical Association. As has been pointed out at the All-China Science Conference in 1959, the professional organization or society should be an effective aid to professional activities under the leadership of the Party. The unrealistic tendency existent among some to devote art for art's sake has been basically overcome.

Work of the Chinese Medical Association during the past decade is now described in brief.

Firstly, organization has seen great improvement during the past ten years. During the 8th, 9th and 10th conventions, serious efforts have been put into revision of the constitution and clarification of working purpose by the association. There has been a great increase in membership. During the early days of the Liberation, there were only 4000 members, but this number was increased to 18,472 by 1958. Beginning in 1954, practitioners of traditional Chinese medicine began to join the association, so that there are 3000 such members at present. Not only is this a new step to increase the cooperation between the practitioners of western medicine and those of traditional Chinese medicine, this is a further indication of the active growth of China's traditional healing art. In order to develop professional activities of the association further, during its 9th convention in 1952, it was decided to develop and increase the numbers of special professional societies. At present, there are 16 special professional societies covering the special fields of internal medicine, surgery, pediatrics, obstetrics and gynecology, public health, ophthalmology, otorhinolaryngology, tuberculosis, radiation, dermatology, neurology, oralogy, pathology, history of medicine, acupuncture, physiotherapy, etc., and one committee on research into hospital administration. Fifty-four branches of the association are dispersed throughout the nation, and specialty groups are also formed within them based on the professional leanings of their members. In September 1958, after the Association of Science and Technology of the Chinese People's Republic has been formed, this association

became a special professional society under its leadership, and a part of a unified, national scientific and technical organization. This way, the activities of the Chinese Medical Association entered a new phase. During March 1959, the Chinese Medical Association, the Chinese Pharmacological Society, the Chinese Nurses' Association, and the Chinese Tuberculosis Prevention Association called a joint symposium on professional activities that saw participation by delegates from all over China. The spirit of the first All-China Science Conference was carried out, the direction and working purpose of the professional organizations concerned were studied, revisions of the table of organization were made, and important points concerning 1959 activities for organizations concerned were outlined, thereby establishing important factors for future activities of the Chinese Medical Association.

Members of the Chinese Medical Association have participated actively in political and social movements, so that they have been able to obtain ideological training from actual life. In 1950, after American imperialism initiated a war of aggression in Korea when the fine sons and daughters of China organized the Chinese People's Volunteer Army on October 25th of the same year which crossed the Yalu River to fight shoulder to shoulder with the Korean people, Chinese medical workers also became organized to supply them with medical aid. On November 28, 1950, the capital's Volunteer Surgical Unit which was formed with members of the Chinese Medical Association was dispatched for the front. After this, many types of medical relief corps, surgical units, public health units, preventive medicine groups etc., were formed throughout the nation for dispatch to the front to protect the health of the most deserving (of love) volunteers and to save the dying and aid the wounded among them. On the home front, besides participating in fund raising movements, this association also aided Resist U. S. Aid Korea Headquarters with timely organization of a rotation system volunteer surgical units, initiated courses on surgery of war wounds and first aid, and mobilized members to write and edit a series of lectures on surgery for war wounds etc., to support the front. Following this, in order to salvage their unsalvageable military defeats, American imperialism initiated the most wicked bacterial warfare on the Korean people which provoked the boundless anger of the whole Chinese people. After Premier Chou En-lai had made a solemn declaration with regard to this matter, the Chinese Medical Association mobilized urgently under the leadership of the Party in an effort to seek active participation of medical workers on the very front lines of antibacterial warfare, and joined with related scientists to form a special committee on defense against bacterial warfare which discussed effective measures for the government's consideration. Branch societies everywhere also organized on a similar scale to assist the government in developing health and preventive medicine.

activities. Due to direct participation of volunteer preventive medicine inspection teams which were organized by China's finest bacteriologists, entomologists, botanists, pathologists, clinicians, epidemiologists etc., in the struggle against American bacterial warfare, the crime of the enemy's bacterial warfare was exposed with scientific proof on one hand, and health and preventive medicine measures for antibacterial warfare received scientific and technical guidance on the other hand. At the time American imperialism invoked the righteous indignation of the world and made hundreds of excuses for their bacterial warfare crime, 20 members of this association joined the American Imperialism Bacterial Warfare Crime Inspection and Survey Team organized by the Resist U. S. Aid Korea Headquarters which conducted actual personal tours in Korea and Manchuria to collect concrete proof. Following this, the Chinese Medical Association responded to an invitation by the Special Conference of the World Peace Executive Committee meeting in Berlin to report on the expose of bacterial warfare crimes of American imperialism. After the "International Science Committee to Investigate Facts of Bacterial Warfare in Korea and China" made up of impartial scientists from six different nations arrived in China, many members actively assisted them in their work, supplying them with highly scientific data so they could write their report based on concrete facts which would be publicized to the world. Our association also helped with arrangements for the exhibit of the bacterial warfare crimes of the American government and examination of movies, slides, pictures and other material related to bacterial warfare. When the World People's Peace Conference exhibited the bacterial warfare crimes of American imperialism in Vienna, members of our association also participated. All these activities have had a great effect on crushing bacterial warfare, and for this reason, they have made an important contribution to preserving world peace. In 1953, this association also assisted the Chinese Red Cross to organize medical specialists to investigate improper medical care and atrocities suffered by the Chinese Volunteer Army prisoners of war in the hands of the United States Army in Korea, and expose another one of the enemy's crimes to the world.

With regard to certain important national and foreign problems, this association has organized medical specialists and a headquarters council to conduct discussions and symposiums. Branch societies have also carried out related activities. Naturally, this provides a very good political education for the medical worker. It must be specially mentioned here that after the ideological criticism and reorientation movement, it has become the fashion for the medical workers to go down to the villages, the factories and plants, and the mines. Not only is this beneficial to carrying out preventive work on the base level, but it also has a very great effect on ideological training for the medical workers.

In the development of professional activities, our principles have been directed toward production, reality, coordination between theory and practice, coordination between popularization and elevation of standards, service to the people's health, service to socialistic construction. For several years, especially since the 10th convention, the various specialist societies have been carrying out many activities such as isolation of the trachoma virus, the popularization of emergency treatment for burns, research on the treatment of appendicitis with traditional Chinese medicine etc., which are outstanding examples. In recent years, many specialty conferences have been held on cooperation with the Ministry of Health. For example, the All-China Conference on Parasitical Diseases in 1958 definitely stimulated the integration of scientific and technical experiences in the prevention and treatment of the five great parasitical diseases, particularly that related to survey work and prevention and treatment on the level of the masses. The All-China Conference on Acute Infectious Diseases held during May this year also integrated the experiences of the struggle against the various kinds of infectious diseases during the past few years with the results of scientific research. The All-China Symposium on Traditional Chinese Medical Techniques with Meridians [there are 12 or 14 in the human body according to traditional medical theory] and Acupuncture called in July suggested further effort needed to integrate research on traditional Chinese medicine. The Conference on Industrial Hygiene in August summarized scientific experiences related to industrial hygiene. Besides this, branch societies everywhere also had plans for scientific study which have grown into professional activities. For several years now, workers in the medical sciences have cooperated with the masses in conducting extensive investigations of focal diseases, and have basically clarified the epidemiological nature of these diseases. Studies on the normal values of certain body functions in the Chinese such as growth statistics on children, measurements on the female pelvis, the normal value of blood, x-ray measurements of the heart, normal values of electrocardiograms and cardiosphygmograms have also seen much effort. Since 1953, when the Symposium on Summarized and Integrated Topics was first initiated, diseases such as diabetes, hypertensive diseases, ulcers, tuberculosis and rheumatic heart disease have been discussed during different symposiums. Each symposium has seen participation by practitioners of traditional Chinese medicine, contents of the symposiums have been published in magazines and bound into special editions to be of helpful reference in actual practice. The specialist groups under the branch societies everywhere also hold many technical and professional meetings. Basically, the content and nature of these meetings may be categorized into two types. One is a professional discussion along specialist lines carried out in many forms such as special topic report, special topic discussion, case analysis, discussion of clinical pathology,

or review of medical articles. In some branch societies, joint diagnosis or diagnosis of special cases is made at the meetings. The other is a report styled meeting of a general and popular technical nature, the purpose of which is to assist in the occupational training of most medical workers, in the form of lectures on special topics mostly. In some cases, various kinds of study groups and training courses are conducted jointly with the local health agencies. The Shanghai branch society has conducted joint lectures with the Shanghai branch society of the Chinese Physiological Society, delivering them at places such as Chang-chou and Wusih where they were well received by the masses. From this experience, the Chinese Medical Association organized a series of more than ten lectures in 1957 and 1958 which were delivered in places such as Yunnan, Kweichow, Kansu, Inner Mongolia, and Sinkiang as well as cities such as Sian, Taiyuan, Chengchou, Wuhan, Chungking, Mukden, Harbin, etc. The reception accorded these lectures has been good. The activities of the specialist societies are also numerous. For instance, branches of the Society of Ophthalmology everywhere have discussed thoroughly the classification of trachoma and its prevention and treatment. The Tuberculosis Society has introduced the Soviet method of tuberculosis classification and applied it widely. The Society on Radiology has suggested research on problems of early diagnosis and early treatment. The Society of Otorhinolaryngology has also made a survey analysis of the application of acupuncture for treatment in ear, nose and throat ailments. The Society of Obstetrics and Gynecology made an integrated analysis of 3000 cases of ovarian tumors from 13 hospitals located in nine cities throughout the nation in 1954. The Society of Pathology made a survey analysis of the autopsy results in 1,979 cases. Professional activities of the local branches everywhere became even more active after 1957 and manifested in many forms. Some of them joined their activities with the local health agencies, while others cooperated with a neighboring branch. For instance, the branch societies at Tientsin and Paoting that joined with the provincial and city health administration agencies to conduct professional activities on those levels, and the branches at Changsha and Wuhan that organized circuit clinical advisory units all tore down the old report style meeting, and they have earned the liking of great numbers of medical workers and attracted many to participate in these activities. In 1959, following the Ning-tu On-the-Spot Conference, the Society of Dermatology called a conference which solved certain actual problems related to venereal disease, leprosy, and ringworm, an actual manifestation of integrated theory and reality.

The editing of medical journals and books is another important technical task of the Chinese Medical Association. Before the 9th convention, besides editing the Chung-hua I-hsueh Tsa-chih [The

Chinese Medical Journal], the foreign edition of the Chinese Medical Journal, the Chung-hua Erh-k'o Tsa-chih [The Chinese Journal of Pediatrics], the Chung-hua Yen-k'o Tsa-chih [The Chinese Journal of Ophthalmology], and the Chung-hua I-shih Tsa-chih [The Chinese Journal of Medical History] a total of five periodic journals, the Chinese Medical Association has also edited and published (or translated and published) Chan-shang Wei-k'o Chiang-yen-tsa [Lectures on the Surgical Treatment of Battle Wounds], Kao-shih I-hsueh Tz'u-hui [Gould's Dictionary of Medical Terms], Practical Pediatrics, Mei's Ophthalmology, Textbook on Human Parasitology, Ch'ing's Bacteriology, Pediatrics Handbook, etc. After 1953, the amount of journal editing increased greatly with additional publication of the various specialty journals. As for work on book publication, this task was transferred over to the People's Medical Publishers on a division of labor relationship. With the great leap forward in 1958, technical journals also made a great leap forward. Some journals have been changed from quarterlies to bimonthlies, and some from bimonthlies to monthlies. Most of the journals have also increased in page numbers, and improved editing always tries to fit the journal contents in with reality and show a timely reflection of China's progress in medicine. At present, there is a total of 14 journals edited and published by the Chinese Medical Association. Total copies published annually add up to 1,200,000. These journals have become a source of important study material for the medical workers in China. From the standpoint of professional medical competence, they provide meaningful guidance and toward raising the level of teaching and research, and prevention and treatment, they exert a very great effect. Furthermore, beginning in 1957, nine kinds of Chinese medical journals mailed to foreign countries had an English table of contents and English abstracts added to facilitate international culture exchanges. Published copies of the foreign edition of the Chinese Medical Journal continue to increase each year, so that there are more than 2,900 copies published with each issue. Its foreign subscribers are found scattered among 37 countries. Furthermore, 422 households from 30 of these countries also exchange similar medical journals with us. This is important in promoting international exchanges on medicine between China and other foreign countries. A particular characteristic since the great leap forward is the increase in number of pages devoted to articles on the achievements of traditional Chinese medicine. For several years now, improvements have been made in journal editing. The base of articles source has been greatly broadened, and with some journals, one or two issues are edited every year by a local society in the specialties. Some journals have published editorials with a guidance policy or talks from the editor. The planning of topic selection has also been intensified.

In order to meet the needs of its members and the requirements of editing, the Chinese Medical Association established a library in Peking in 1953. Some local branches also have libraries.

These has been marked progress during the last few years in learning from the advanced state of Soviet medicine. Due to promotion by the Chinese Academy of Sciences, the Ministry of Health, the Chinese Medical Association and other related professional societies such as the Chinese Physiological Society, the fervent wave to learn from the Soviet Union has enveloped the whole nation. Pavlov's theory has been widely accepted by the medical workers in China and is beginning to be applied in medical research or clinical practice. In order to study and learn directly from the Soviet books and journals, many medical workers have learned Russian, and many of them can read from Russian books and journals directly. As for new and beneficial experiences from other countries in the field of medicine, the Chinese medical workers also hold a humble attitude of learning from them, and coordinating them with actual conditions in China, have applied them in actual practice. Promoting cooperation between the practitioners of western medicine and those of traditional Chinese medicine and the study of China's heritage in medicine are focal points in the activities of the Chinese Medical Association. In 1953, a Committee for Exchange Between the Chinese and Western Medical Arts was established, and lectures on traditional Chinese medicine were also organized. The various professional meetings also saw participation by the practitioners of traditional Chinese medicine. In 1954, practitioners of traditional Chinese medicine began to join the association as members. After the directive issued by the Party and central government for the practitioners of western medicine to study from the practitioners of traditional Chinese medicine, and with promotion from the Ministry of Health, the Chinese Medical Association and its various local branches showed fevered interest in studying China's traditional medicine. Committees for exchange between the Chinese and western medical arts were established within many local branches, and the various specialty societies also began to absorb the experiences of traditional Chinese medicine within the limit of their specialties, and studied the historical and special achievements of Chinese medicine in their special fields. Research units on special topics were also formed in some local branches to study certain particularly effective therapy practiced in traditional Chinese medicine. The Peking branch of this association compiled a list of book titles on traditional Chinese medicine found in the five large libraries in Peking. The Shanghai branch and its society on the history of medicine and the Shanghai branch of the Chinese Pharmacological Society also held a joint exhibit on the writings of Li Shih-chen. All these activities are coordinated with the study of traditional Chinese medicine. Due to the fact that many hospitals throughout

the nation have invited the practitioners of traditional Chinese medicine to work on their staff, the professional cooperation between the practitioners of western medicine and the practitioners of traditional Chinese medicine have been intensified even more through their work. Criticism directed toward the belittling of China's heritage of medicine has exerted a great effect toward intensifying cooperation between the practitioners of western medicine and traditional Chinese medicine by developing their potential and their mutual efforts at research and exploration of China's heritage of medicine. After the directive from the Chinese Communist Party and the central government to the party section of the Ministry of Health calling for a conclusive report on the granting of leave to practitioners of western medicine to allow their organization into traditional Chinese medicine study classes has been issued, many practitioners of western medicine have been very serious in their study efforts. After an editorial "Carry Out the Party's Traditional Chinese Medicine Policy Seriously" was expressed in Jen-min Jih-pao dated January 25th of this year, many medical workers obtained a deeper understanding of this policy of the Party's. At present, many of the papers presented at the professional meetings and conferences are on the subject of Chinese medicine with many of them being reports on the unified application of the western and Chinese healing arts. Work such as this has provided further close cooperation between the practitioners of western medicine and those of traditional Chinese medicine and established a foundation for a new school of medical thought in China.

Activities of the Chinese Medical Association in international exchange grow wider each day. Due to the easing of international conditions, and the high tide in the world peace movement, our contacts with the medical profession in other countries have increased. Up till 1958, there was a total of 190 occasions which involved participation of specialist delegates from this association at other national professional conventions or international professional conferences, or reception of visiting medical delegations from more than 30 countries including the Soviet Union, Czechoslovakia, Hungary, Socialist Germany, Bulgaria, Roumania, Albania, Mongolia, Korea, Viet-nam, India, Pakistan, Indonesia, Burma, Ceylon, Argentina, Brazil, Mexico, Bolivia, Switzerland, Sweden, Denmark, Norway, Finland, Japan, Great Britain, Australia, Austria, Italy, France, etc. Among the friends in the foreign medical delegations that have been visiting China over a period of years are many specialists. When they come, we have asked them to make technical professional reports. We have also been organizing symposiums on such occasions for the exchange of experiences. They have also inquired about the different aspects of Chinese society. There are also many instances where China has sent delegates to participate in foreign conferences such as the First World

Conference on Medicine, the International Conference on Dermatology, the working conferences of the societies for scientific medical research in the various socialistic nations, the All-Soviet Conference on the Problem of Pneumoconiosis, the 26th All-Soviet Congress of Surgeons, the 13th All-Soviet Conference of Public Health Specialists, Microbiologists, Epidemiologists, and Infectious Diseases Specialists, the 14th All-Soviet Congress of Internists, the 8th International Conference on Pediatrics, the 5th International Conference on Radio-physiology, the 2nd Symposium of International Microbiology Investigating Microbe Immunity, the 2nd International Conference on Calmette-Guerrin Vaccination Techniques, the 2nd European Conference on Cardiology, the Czechoslovakia Conference of Tuberculosis and Chest Specialists etc. Pai Hsi-ching, an executive in the Chinese Medical Association was selected as secretary to the World Conference on Medicine and he has been working regularly at the secretariat of the conference. A medical quarterly "Living Conditions and Health" sponsored by the World Conference on Medicine is published in six different countries in six different languages, and its Chinese edition published in Peking is translated and edited by the Chinese Medical Association. Twenty-nine members of our association also participate as members of the International Society of Surgery. One member has been selected as an honorary member of the Soviet Society of Surgery, three members have been selected as honorary members of the Soviet Society of Epidemiology, Microbiology, Hygiene and Infectious Diseases, and one member has been selected as honorary member in the Soviet Society of Internal Medicine. This shows even closer links between the Chinese medical profession and its counterpart in foreign countries.

While we have seen many achievements during the past decade, they are far from adequate when regarded in light of objective needs. In our work for the present and the future, we must work harder, and continue to correct our faults in order to progress forward. Scientific and technical activities in China have seen unprecedented development since the 1958 great leap forward in agricultural and industrial production. Activities of the Chinese Medical Association must continue under the leadership of the Party to strengthen political thinking, promote cooperation between the practitioners of western medicine and those of traditional Chinese medicine, promote cooperation between young and old medical workers, with our faces toward reality and production. Based on principles coordinating popularization with an advanced level, the western with the Chinese, these activities must continue to raise the level of professional competence, to fully express the function of serving as aides to health agencies and to better serve the health of more than 600,000,000 people and China's socialistic construction activities.

II. NEW CHINA'S PROGRESS IN INTERNAL MEDICINE

Pages 816-833

Editorial Committee of
Chung-hua Nei-k'o Tsa-chih

- A Salute to the Nation's Great Tenth Anniversary -

Since the establishment of the Chinese People's Republic in 1949, work in the field of internal medicine in China has seen great achievements together with great developments in socialistic construction and rapid strides in hygiene and health measures. In the structural framework, besides the establishment of departments of internal medicine in existing hospitals, health clinics, sanitariums, medical schools and colleges, a comparable number of research units dealing with specialties such as schistosomiasis, infectious diseases, cardiology, hematology, etc., that are related to internal medicine have been established within institutions such as the Chinese Academy of Medical Sciences and the Medical Science Academy of the Chinese People's Liberation Army. The number of workers in the field of internal medicine has also seen a rapid increase. Take the number of internists for example. In 1957, their number had attained a figure of 26,702 which was 150.8% of the 1952 figure⁽¹⁾. Where proficiency of techniques is concerned, the theoretical training and clinical experience of internists have generally been greatly advanced. Many medical schools, colleges, and hospitals have set up various specialties within the field of internal medicine to allow scientific research and medical treatment separately while training a great number of specialists at the same time. Furthermore, the nation has also sent a great number of graduate students abroad to the Soviet Union and other brother nations for further study. Recently, many of them have returned to China after completion of their studies to participate in work back home. Without doubt, these returnees are exerting a definite influence toward raising the level of medicine and internal medicine in China.

For several years now, health and preventive medicine measures have developed with great leaps forward. In 1952, after bacterial warfare instigated by the American imperialists had been exposed, the Patriotic Health Movement, coordinating a health movement and a mass movement under the sponsorship of the Party and central government, gradually became a regular type of health activity. Particularly after announcement of the Tentative Outline of All China Agricultural Development from 1956-1967, mass movements to remove the four pests, promote health, eliminate disease swelled even more. As the result the backward condition of the old China's health measures was rapidly shaken off to show a new face. As of now, China has eliminated cholera⁽²⁾, plague, and smallpox⁽³⁾ and has brought acutely infectious diseases⁽⁴⁾ such as typhus, relapsing

fever etc., under control. Results on the prevention and treatment of diseases such as schistosomiasis, malaria, filariasis, kala-azar, and ancylostomiasis that used to affect the health of the people in epidemic proportions have been even greater. Schistosomiasis used to be endemically prevalent in 324 towns and hsiens distributed in 12 provinces along the two banks and south of the Yangtse River. Its transmitting agent, the Scala aurita, was distributed over an area of 8 billion square kilometers and infecting close to 10,000,000 persons. By the end of 1958, 197 towns and hsiens had basically eliminated schistosomiasis, the treatment of snail infested areas had covered 5.2 billion square kilometers, and about 4,230,000 infected persons had been treated.⁽⁵⁾ The occurrence rate of malaria had been markedly reduced. For every 100 persons affected by malaria before the Liberation, the figure had dropped to 19.4% by 1955, to 10.3% by 1956, to 2.6% for the period from January to August in 1958⁽⁶⁾. Filariasis originally prevailed in towns located in 15 provinces between latitudes 18° to 37.5° in China, affecting a total of 20 to 30 million persons. By March of 1958, 38 hsiens and towns had basically eliminated filariasis⁽⁷⁾, and the number of affected treated totalled 2,600,000 persons. Kala-azar was originally prevalent in areas of 13 provinces north of the Yangtse River covering 650 towns and hsiens affecting 530,000 infected persons. At present, more than 90% of the endemic areas have basically eliminated kala-azar, leaving about 10,000 infected persons still receiving treatment.^(5,8) According to estimates there were originally 50,000,000 ancylostomiasis infected persons throughout China that showed symptoms of the disease, while there were almost 100,000,000 persons infected by hookworms.⁽⁶⁾ By October of 1958, 23 hsiens and towns had basically eliminated ancylostomiasis and treated more than 36,000,000 persons.⁽⁵⁾ Due to continued improvement of living conditions, continued elevation of the hygienic level, and other preventive medicine measures, the death rate of tuberculosis has been greatly reduced. Take Peking as an example. The figure has been dropped from 230/100,000 in 1949 to 45.9/100,000 in 1958⁽⁹⁾. Preventive medicine on other serious diseases that endanger the people's health has also seen great accomplishments. While industrial and occupational medicine is a new science in China, it has seen great development during the last few years. In industrial hygiene, methods of work protection have been devised, and specialty structures and research units have been established. Work in industrial dust prevention has also developed very rapidly, and in some factories the powdered dust concentration has dropped below the standard maximum of 2 milligrams per cubic meter. Corresponding measures have also been taken to prevent heat exhaustion and heat loss. Effective health safety systems to protect the health of the workers have been established in all the factories and other places of work. The people's death rate in China had been

dropped to 17% in 1953, an obvious drop⁽¹⁰⁾ from the figure of 25% based on survey material obtained before the Liberation. The average death rate of 12 cities in 1956 showed a further drop to 6.9%.⁽¹¹⁾

The fact that China has been able to accomplish such great achievements in the fields of medicine, pharmacology, and health during a short period of ten years is tied in with the leadership of the Party and government and the support of all the people. In our experience, we have thoroughly realized that victory and success come only by leadership of the Party taking the course of the masses. There was a period in the past when the Party's traditional Chinese medicine policy was not taken in earnest, and some loss was sustained in work. After this error has been criticized and rectified, and especially during the last two or three years, great developments and achievements have been seen in the field of traditional Chinese medicine⁽¹²⁾. The treatment of appendicitis with traditional Chinese methods⁽¹³⁾, treating malaria with acupuncture, etc., not only has enriched therapeutics, they have also shed new light on the basic theory of related diseases. At present, traditional Chinese medicine work is being developed throughout the nation with much fanfare. Especially after approval of the Party and the central government's November 1958 report to the Ministry of Health on the organization of western medicine physicians with leave from their positions to participate in traditional Chinese medicine classes, this movement to learn more about traditional Chinese medicine has increased in momentum. Besides those taking training at their jobs, 2125 western medicine physicians have been enrolled in 30 training classes⁽¹⁾. Of these, most are medical practitioners of internal medicine, and this has peculiar significance in enforcement of the Party's traditional Chinese medicine policy and establishment of a new medical approach.

The international support of the people of the Soviet Union, other brother socialistic nations and other countries have given to the development of China's health activities has had a great effect. Since the Liberation, China has learned from the progressive experience of the Soviet Union with great determination. Workers in internal medicine have generally studied the theory of Pavlov, learned and applied certain progressive therapeutic experiences with definite results. Recently, China has participated actively in international exchange symposiums on theory and techniques. In the field of internal medicine, delegations have been sent to attend the 14th All Soviet Conference of Internal Medicine Practitioners, the Second European Institute on Cardiology, the 3rd International Conference on Cardiology, and to read papers at the same time. At home in China, many medical delegations or medical specialists from countries such as the Soviet Union,

Czechoslovakia, Bulgaria, Hungary, Korea, Vietnam, India, Indonesia, Argentina, Japan, Great Britain, etc., have been received, and experiences have been exchanged with them.

The Society of Internal Medicine of the Chinese Medical Association was established after the Liberation. The number of members in the society (including traditional Chinese medicine practitioners) totalled more than 5000 persons. For several years now, this professional organization has exerted great effort toward raising the occupational level of workers and improving the quality of therapeutics through all kinds of professional activities such as editing the Chinese Journal of Internal Medicine, conducting symposiums and seminars.

It can be clearly seen from these facts that China's achievements in the field of health during these ten years are great, and progress in the field of internal medicine has been rapid. Due to limitations of space, only the more important phases of work done on parasitic infestations and infectious diseases, cardiovascular and kidney diseases, diseases of the digestive system, diseases of the respiratory system, diseases of the blood forming system, diseases of endocrine origin and metabolism, and industrial occupational diseases since the Liberation are described in brief.

I. Parasitic Diseases and Infectious Diseases

Research on parasitic diseases is closely coordinated with prophylaxis and treatment. The regions in China where schistosomiasis is prevalent and endemic may be classified into three categories:(15) 1) the plains and river network type where infection or infestation is due mostly to contact with polluted water during the course of daily living; 2) the hills and ditch type where affected persons are usually infected or infested during work in the fields; 3) the lake and swamps type where infestation occurs during grass cutting periods along the edge of the lake. Among domesticated animals in the endemic areas, the infestation rate of the farm buffalo is the highest, and the infestation rate of the yellow buffalo is higher than that of the water buffalo(15). Besides schistosoma japonica that is found within the bodies of domesticated animals, *Ornithobilharzia turkestanica* and its variation *O. turkestanica* var *tuberculata*, *O. cheni*, and *O. bomfordi*(15) are also found. Among rodents found in Yunnan and Szechwan, two new blood flukes that the human body does not act as host to, *Schistosoma sinensis* and *Schistosoma* sp., have also been found(15). Much research has also been done on the *Scala aurita*, and a series of snail destruction plans that comprise such measures as walling in, burying under dirt, burning, scalding, converting watery fields into dry fields, drugs (including plants) etc., have been outlined(15). Research has also been conducted on blood fluke ova, flagella, and

cercaria, with special attention on the developmental stage from flagella to cercaria which also is a supplement to embryology(15). Along the river banks where snails of the scala aurita variety are found, contact with cercaria often seen in water droplets on grass or leaves or in watery film on the dirt surface by man or animal will result in infestation(15). This observation has important significance on prevention. Proper treatment of excreta is the key to destroying the ova. At present, the method that combines stools and urine in container with tight lid which provides for sealed storage of a definite length of time whereby the ammonia released from the urine will destroy the Schistosoma ova is most widely used. Treatment of infested domesticated animals is confined to schistosomiasis of the farm buffalo. Other infested domesticated or wild animals are simply eliminated or caught and killed(15). Besides the methods of sediment inspection of stools and ova hatching used in the diagnosis of schistosomiasis, methods of preventive medicine such as intradermal testing with fluke or powdered ova antigen which has streamlined checkup work, the complement fixation test, the cercaria membrane reaction, cycled ova precipitation test, carmine flocculation test, etc., have become diagnostic aids(15). The intradermal test is very simple and easy to use, but most antigens have type characteristics and non-type characteristics as well, so that pulmonary distomiasis may show a cross reaction. The cercaria membrane test and cycled ova precipitation test both show strong characteristics and a high degree of sensitivity which make them valuable in early diagnosis. Antimony compounds are still chiefly used for early distomiasis or schistosomiasis. At present, the short course (3 days) of treatment with antimony compounds is used quite extensively. The total dosage is based on body weight, 12 milligrams per pound of body weight, with maximum dosage not to exceed 0.7 grams(15). With this method, a great number of patients are treated within a short period of time. Short course antimony therapy does not increase its toxicity, as the patient death rate during period of treatment is just around 0.1%(5). For late stages of schistosomiasis, combined treatment with methods of western and traditional Chinese medicine is generally used. The principle of recognizing illness to be followed by treatment that traditional Chinese medicine practitioners use is utilized to first treat ascites which results in a general improvement of symptoms and bodily function. These are conditions favorable to further treatment with antimony compounds. For example, 80% of 1291 patients in Hunan province were able to reach the stage where further treatment with antimony compounds was possible(15). Traditional Chinese drugs used most often include "Chi'en Wei Ling Wan" [possibly the proprietary name of a pill], "Han-pa-chiang-fan-wan" [possibly the Chinese transliteration of a foreign proprietary drug], travel pills, cocculin and bassorin compound tablets, "bivalve pill" [a pill containing as its main

ingredient the pulverized shells of bivalvular mollusks], liver and spleen swelling subsiding pills, etc., (15). Besides these, acupuncture therapy may also be used. In patients where the spleen is greatly enlarged, splenectomy is also performed. Toxic reactions from antimony compounds chiefly affect the heart and liver, and deaths from such poisoning comprise 75-97% and 2.4-13% respectively of all deaths resulting from antimony intoxication (15). Cardiac arrhythmia induced by antimony compounds is treated effectively with atropine (15), and certain other toxic reactions such as nausea, vomiting, palpitation, etc., may be treated or prevented with acupuncture (15). New antimony compounds such as 8-hydroxy-quinoline, Sb-5, Sb-58 and Cucurbita Pepo, L., Lobelia radicans, Thunb., Euphorbia pekinensis, Rupr., root of Sapium sebiferum, etc., among traditional Chinese drugs all show a definite therapeutic value (5,15). The occurrence of dwarfism in cases of schistosomiasis in the endemic areas is 1%, and its clinical picture is like that of pituitary dwarfism. It is possible that the development and growth of the anterior pituitary during childhood years have been affected by the progression of the schistosomiasis, and after treatment with antimony compounds, the patients can still continue with growth and development (15). X-ray changes are detected 81-90 days after first contact with contaminated waters, showing a pattern of extensive pathological changes. Actual pathological changes of the lungs are classified into granule, floccule, spotty villi, irregular pieces or mixed types (10-18). These changes may persist from 23-96 days. On the basis of animal experiments, it is possible that these changes are induced by the ova of schistosoma (16), though there are others who feel they are caused by the cercaria, or the allergic reaction of the body toward cercaria (17). There is less brain damage, only about 1% during the acute stage (15). As of now, 12 cases of gastric schistosomiasis have been discovered. The chief clinical symptom here is pyloric obstruction which is often misdiagnosed as stomach cancer or malignant changes in peptic ulcers. During surgery, cancerous like swellings in the area of the pyloric orifice are seen connected to the serous membrane, hard yellowish white tubercles the size of a grain of rice are found in the surrounding tissues, and sometimes the lymph nodes are also swollen. Pathological examination reveals most of these to be granuloma associated with schistosomiasis, and a great quantity of ova is also found in them (19-25). Many instances of intestinal cancer, mostly in the sigmoid colon and the rectum can be traced as schistomiasis originated, though few instances of liver cancer are triggered by the same cause (15).

Malaria endemic areas can generally be classified as (26):

- 1) Low malaria occurrence areas. The rate of spleen enlargement is generally below 10% and most of the people do not have malaria,

It is found only in a few focal points along the swamps of the river banks in the form of tertian malaria. The residents here do not possess any immunity against it. 2) Intermediate malaria occurrence areas. Spleen enlargement in the mountainous and hilly parts is 10-50%, and below 10% in the plains. Extensive focal distribution of malaria is found mostly in the mountainous areas in forms of tertian and malignant malaria, and the residents generally do not possess any immunity. 3) High malaria occurrence areas. The spleen enlargement rate in the plains here is between 10-50%, and 50-100% in the mountainous areas. Focal malaria ridden areas are found extensively. Malignant malaria is more prevalent than tertian malaria and most of the residents in the malaria ridden areas have immunity. 4) The Northwest. This area has the lightest malaria occurrence in the whole of China. As for transmitting agents, the anopheles mosquito and 43 variations of it have been found in China. In order to initiate medicinal therapy on a large scale, it has been found that a single dose of 0.4 gram of atebrine and 0.04 gram of plasmochin is really effective. Tao-hsien in Hunan province has been using this method to treat more than 100,000 persons since 1953(6). Clinical observations have been made on all kinds of anti-malarial drugs such as atebrine, chloroquinine, chloroguanidine, daraprim, "p'u-yao-ch'i-te" [Chinese transliteration of foreign name of an antimalarial], primaquine, and traditional Chinese drugs such as Orixia japonica, Thunb., etc.(26,27). The immediate therapeutic effect of treating malaria by acupuncture is more marked. Its long range effectiveness will require more follow up observation in the future(6,14,26).

Filariasis bancrofti and filariasis malayi are the two forms of filariasis prevalent in China. North of the Yangtse River, filariasis bancrofti is found to be more prevalent, though filariasis malayi is also found in the northern part of Honan province. Along the Yangtse valley and in the area south of it, the two forms of filariasis are found, and filariasis bancrofti only is found on Hainan Island(7). In the filariasis bancrofti endemic areas, the chief transmitting agents chiefly are the culex mosquitoes, the culex pipiens var. pallens and the culex fatigans, followed by the Anopheles hyrcanus var. sinensis. In the mountainous areas of southern China, the Anopheles minimus possibly is an important transmitting agent. Often seen mosquito types such as the Anopheles Chi-puicus and the Anopheles jeyporiensis var. candidiensis should be observed. In the filariasis malayi endemic areas, the Anopheles hyrcanus var. sinensis is the chief transmitting agent(28), and the Aedes togoi is one of the transmitting agents found along the coastal areas(7). In diagnosis, 0.1 gm hetrazan is taken orally, and examination of peripheral blood 15-30 minutes later for filaria larva is a definite help(7). For treatment, not only does hetrazan kill the microfilaria larva, it also kills the adult filaria. Carbasone also has a similar effect(7). There is a tendency, at

present, toward short course treatment and recently, therapy with a single dosage of 1 gram hetrazan has been tried successfully. Therapy with traditional Chinese medicines such as "kung-chin-ts'ao" [Chinese name of a herb], gunpowder, "Fen-ch'ing Wu-lin Wan" [possibly a Chinese proprietary name for gonorrhea pill], root of *Oryza sativa*, L., var. *glutinosa*, etc., has also been tried with certain results(5). As for elephantiasis, hydrocele, chyluria etc., which take place during the latter stages of the disease, surgery, passive pressure lowering congestive therapy, fluid extraction with heated powdered placenta tissue, and traditional Chinese medical methods with swelling reducing agents, *Capsella Bursa-pastoris*, Moench., acupuncture coordinated with injections of placenta extract etc., are employed. The effectiveness of these methods is still in the process of observation(5,7).

In work on ancylostomiasis, the test tube culture method for diagnostic count originated by China is more effective than Stoll's egg count method. Furthermore, it is also easier to use, and is used extensively in Szechwan province(29). The use of tetrachloroethylene and bromo-2-naphthol mostly for treatment also shows good results. Clinical observations have also been made on traditional Chinese medicines such as *chenopodium ambrosioides*, L., anemia curing pills, "kuan-tsung" concoction, pills of *Eragrostis pilosa*, Beauv., anthelmintics, etc., with good results. Prophylaxis has adopted the mixed excreta storage method (1 - 2 weeks during the summer, and 1 month during cold weather) without adding any water, a method of rapid decomposition into manure-fertilizer by means of high temperature, the addition of 666, lime nitrogen, and the traditional Chinese drug derris powder to the excreta will destroy the ova and larva effectively. Applications of 2-4% iodine solution or butyl phthalate locally have been tried to prevent entrance of the ancylostoma larva, and the results have been good(5,6).

As for epidemiology on kala-azar, the following observations have been made(8). Leishmaniasis is found to be more prevalent in certain areas, such as Northwest China. It is rarely seen in eastern China. In Kansu province, kala-azar seem to affect children only, while in Kiangsu province, it seems to affect mostly the adults. Consideration of these observations raises the possibility of two types of kala-azar existent in China. Kala-azar found in the area of Kiangsu province is similar to India type, while that prevailing in Kansu is similiar to the Mediterranean and Central Asia type of leishmaniasis. Up to the present, 25 known varieties of *Phlebotomus* or sand flies have been counted, though only 17 varieties were known of before the Liberation. In studies on using 666 or 223 to destroy the *Phlebotomus*, it has been discovered that the *Phlebotomus* does not show any drug resistance to such drugs. Due to effective measures of preventive medicine, the clinical picture of kala-azar shows very few late stage cases.

Cases of kala-azar complicated by dermal leishmaniasis are also seen. Sometimes the skin shows knotty bumps which often makes such cases mistaken for leprosy. Sometimes the mucous membranes are involved and the clinical picture shows signs of tumor growth. The positive diagnosis rate of kala-azar may be as high as 91.6% when a complement fixation test is done with the dried spleen tissue of animals such as an infected mole and simply made antigens. Clinical observation of 3,897 cases treated with antimony sodium gluconate shows a cure rate of 91.6%. When the figure of treated recurrent cases is included, this cure rate is upped to 97.4%. With the exception of a few who need to have splenectomy performed(30), antimony compound resistant cases are treated effectively with the diamidine group of drugs(31), and infrequent involvement of the trigeminal nerve may be treated by acupuncture. Among antimony compound resistant cases and cases of visceral leishmaniasis complicated by dermal leishmaniasis, the negative incidence of the serum anti-complement fixation test is higher(32).

In recent years, a deeper understanding of pulmonary distomiasis has been achieved. It is now recognized to be a constitutional disease that can attack any tissue or organ including the digestive tract, liver, spleen, kidneys, bladder, peritoneum, pleura, central nervous system etc.,(33-35) with many clinical manifestations. Damage to the central nervous system is especially important. Due to the destructive nature of the adult fluke and the resulting damage from its motility, serious consequences such as convulsions, paralysis, and all cerebral and symptoms may appear. Pathological examination further proves the upward course of the lung flukes along the connective tissue around the vessels of the neck (33,34). X-ray examination of the chest shows significant findings such as ill defined beehive like shadows, circular vacuoles, elliptical cystlike shadows, tubercle shaped shadows, etc. (36-47) Intradermal testing with lung fluke antigen and the complement fixation test are of value in diagnosis(48-55). The cross immunity reaction of various flukes has a definite effect on the accuracy of the skin test, but that may be solved by raising the dilution of the antigen(56-58). Combined therapy with large doses of emetine and chloroquine is best. Observation in Chekiang of 142 cases on average doses of 2.84 grams emetine combined with 71.32 grams chloroquine for 195.9 days shows the cure rate to be as high as 81.7%, and cerebral and spinal symptoms show great improvement after surgery(59).

In the treatment of taeniasis, combined therapy with betel nut (60-100 grams) and Cucurbita Peop, L. (80-125 grams with peels included) is effective against 95.11% of cases of taeniasis bovis, and completely effective against a smaller group of taeniasis suis (60). The cure rate of therapy with betel nut alone may be as high as 94.1% for taeniasis suis, 50% for taeniasis bovis, which is higher than that of filix mas therapy(61). Betel nut is also

effective against and used extensively to treat broad fish tape-worm disease(62-64) and dwarf tapeworm disease(65-66). For administering the drug, the duodenal tube has been found to be quite effective(67,68). Besides this, experimental results with combined therapy involving betel nut and atabrine(69), betel nut, Cucurbita Peop, L., and pomegranate peels(70), and "lei-wan" [Chinese name of a fungus which grows parasitically on the root of bamboo. Dictionary gives scientific name, Mylittapidescensifor](71,72) to treat taeniasis are good.

Regarding infectious diseases, research on type B encephalitis has been coordinated fully with direct preventive measures. Many virus strains of type B Japanese encephalitis have been isolated in various areas(73). The epidemic occurrence of this disease is strictly seasonal, and there is often a period of sporadic occurrence before an epidemic. Growth of the host insects, the immunity of people and animals are all related to epidemic conditions. Dormant infection of people and animals is possible. According to a survey by Peking, 20-30% of the populace has obtained detectable complement fixation antibodies after a seasonal epidemic, and 100% of all pigs examined show neutral antibodies(70). According to a survey made in a certain area, 1/3 of all children under 10 years of age show immunity, 1/2 of all persons between ages 10 and 20 years, 2/3 of all persons between 20 and 30 years, and 80% of those above 30 years old show immunity, and hooved animals are the chief sources of infection(73). Besides the *Culex pipiens* var. *pallens*, other transmitting agents such as the *Aedes* and *Anopheles hyrcanus* var. *sinensis* are also very important. Recently, the *Lasiohelia tawana*, Shirake caught naturally in Fukien province has had many virus strains isolated from it(73). According to research in various localities, the transmitting mosquitoes and insects are the long term hosts of this disease. Encephalitis viruses have been isolated from the adult *Culex pipiens* var. *pallens* that has weathered the winter and adult *Culex* mosquitoes hatched from larva produced by this type of mosquito(73). Under actual experiment conditions, the viruses may be preserved for more than 164 days in the bodies of winter weathering mosquitoes(73). Research on the capacity of eggs to inherit the viruses from the mosquito also shows positive results(73). Experiments carried out with white mice shows that 3-10 hours after infection by extra-neural channels, the virus count of the disease drops to its lowest level, but after 10 hours, the disease viruses begin to increase in the extra-neural tissues until a peak is reached after 24 hours and precipitating first toxemia, then a hemo-encephalic barrier, to spread inside the brain(73). Susceptibility factors of this disease are quite complicated, and they are greatly affected by the virility of the virus strain, natural environmental factors (particularly temperature), and body reaction. Clinical workers also have a better understanding of the disease now. The diagnostic

skin test has been in use since 1954 attaining 80% accuracy in positive cases. However, the positive reaction generally only shows up five weeks after the onset of the disease⁽⁷⁴⁾, so it is of no diagnostic value during the early stages of the illness. The course of the illness is more severe during the first half of the epidemic cycle when the death rate is higher. During the second half of the cycle, there is a natural tendency for the severity of the illness to taper off. Paralysis of the respiratory center is the chief cause of death (80.7%), followed by circulatory failure, then pyrexia, unconsciousness and convulsions, etc. According to a survey by Peking, the sequela occurrence rate at time of discharge of patients from the hospital is 11%. 1/4 of the remainder will recover completely, 1/2 will show recurrence of symptoms, while the other 1/4 will show serious and incurable sequela. Among sequela diseases, paralysis of the extremities, aphasia, mental illnesses are the most common⁽⁷³⁾. Besides the general symptoms associated with this disease, post mortem examination of 34 cases in Peking shows that 32% of them were complicated by cerebral hydatid disease, and such changes were only found in 0.010-1.245% of deaths from other causes. Twenty-six cases in Sian show a practically similar discovery. It is possible that the parasitical presence of trichiniasis has damaged the brain tissue somewhat, or it may have induced a hemo-encephalic barrier to provide a vulnerable factor affecting susceptibility to the disease⁽⁷³⁾. There is still no outstanding method to be used in the treatment of epidemic encephalitis. After trials with therapy by traditional Chinese medical practices at Shih-chia-chuang in 1954, such a method has been used extensively throughout China now, which proves its effectiveness⁽⁷³⁾. Recently, therapy with artificial hibernation is also being tried obtaining satisfactory results in lowering the body temperature and relaxing mental symptoms⁽⁷³⁾. Application of encephalitis vaccines have seen use only since the Liberation. Two kinds, chick embryo vaccine and mice brain vaccine, have provided certain preventive results. Chick embryo vaccines do not have good keeping qualities while mice brain vaccine may precipitate a reaction much like cerebro-spinal fever after vaccination. Therefore, problems still remain in regard to prophylactic vaccines for encephalitis. Recently, research on the preparation of vaccine with the tissue culture method, its purification and preservation etc., is actively being carried out⁽⁷³⁾.

Research in influenza has been going on ever since the early stage of the Liberation. The establishment of central research laboratories throughout China after the All China Symposium on Influenza Research in 1957 further stimulated the progress of such research. In 1950, Peking first isolated two strains of type A viruses, after which laboratories at other localities isolated type A, subtype A, type B, type C and a type D isolated from mice.

Type D influenza virus has been discovered in human beings (Wuhan). The chief disease inducing type in China is the sub type A. In 1957, during a world wide epidemic, China has isolated several strains of viruses which are classified as Asian A type(75). According to presently available material, it seems that the epidemic in China first got started along the Yunnan-Kweichow border. On diagnostic methods, some persons have tried improved chick embryo amniotic sac(75) vaccinations, by using highly effective complement fixation serum from guinea pigs (this serum may be used as standard serum for complement fixation and blood agglutination control tests at the same time), and following the standardized method for the preparation of cholera filtrate, the non-conductive agglutination inhibins etc., in the serum are removed.(75) Direct blood agglutination or complement fixation tests of the patient's mouthwashes and slide examination of nasal membranes are also used. Treatment of influenza with traditional Chinese medicines such as honeysuckle and forsythia powder, and a mulberry-chrysanthemum drink, acupuncture etc., all have definite therapeutic effect(75). Root of Rumex japonica, Meishn., Sonchus oleraceus, L., pomegranate peel etc., are also found to suppress influenza viruses. Influenza vaccine has been manufactured, but it has not been tested on a large scale yet.

As for illnesses resembling influenza, survey and research on glandular viruses have been initiated, and three strains of glandular viruses have been isolated. Of these, two strains have been typed, while the other strain has yet to be typed(76). During the 1958 epidemic of infantile pneumonia, glandular viruses have been isolated and reported(77).

On the disease sources of poliomyelitis, 62 virus strains have been isolated from stool specimens collected from several localities in 1957. Type I was the most numerous, making up 56.4% of the total, and followed by types II and III(78). Among the 116 strains of viruses isolated in Shanghai, type I was also found to be the most numerous(78). In 1958, the Union Hospital of the Chinese Academy of Medical Sciences used the human placenta amniotic cell culture method and isolated 132 strains of poliomyelitis viruses from 303 stool specimens obtained from 195 poliomyelitis cases or suspected cases. The virus type of 81 cases belonged to type II which made up 63.2% of the total. The picture here was quite different from that of most epidemics where type I was predominant(78). In another instance, 4 strains of poliomyelitis viruses were isolated from the stool specimens of 12 cases clinically diagnosed as "type B encephalitis". Among these, the encephalitis serum complement fixation test on three cases was found to be negative, thus proving the existence of the encephalitis form of this disease(78). The treatment of poliomyelitis still calls for integrated measures, among which traditional Chinese medicines play an important role. According to preliminary material available, the effect of acupuncture on the sequela complications of this disease is quite marked(78).

Due to the development in production and construction in recent years, diseases of naturally epidemic areas such as leptospirosis, forest encephalitis, epidemic jaundice, tsutsugamushi disease etc., have received much attention, and related subjects such as epidemiology, pathogenesis of transmitting agents and sources, pathology, preventive measures, etc., have all undergone systematical research, so that the clinical understanding of disease is also heightened. Understanding of leptospirosis in the past has been quite vague, but after the Liberation, particularly during the last few years, the extensive epidemic nature of this disease has been proved after surveys and studies made in places such as Chekiang, Kwangtung, Szechwan, Yunnan, etc., to show that it is an occupational disease of peasants working in the paddy fields. The infection rate among animals which include mice, dogs, pigs, cats and buffaloes, is also quite high. From the epidemic areas, many strains of *Leptospira* have been isolated. The clinical picture of this disease is not consistent. Many cases do not show any obvious symptoms such as jaundice, nephritis or bleeding. According to observations made in a certain epidemic area recently, this disease may be induced by different bacteria types, closely resembling epidemic influenza, and capable of causing serious hemorrhagic pneumonia. This has caused much difficulty for a differential diagnosis. Where pathological physiology is concerned, detailed observations have also been made on liver and kidney function, changes in the blood coagulating apparatus, organ damage to the heart, lungs, bone marrow, etc. (79) Research on serum immunology is still being carried out.

Cases of local tick borne-relapsing fever was first discovered in areas of Sinkiang. Its transmitting agent has been proved to be the *Ornithodoros papillipes* of the genus *Ornithodoros*, though the investigative research for its natural host is still going on. Treatment of this disease with penicillin is ineffective. Multiple therapy with arsenicals still shows the best results (80).

Though the occurrence rate of bacillary dysentery has been falling gradually, it has not been easy to radicate this disease completely, due to the large scale existence of infection sources. For this reason, this disease is one of the foci of research. Research on the epidemiology of dysentery and typing of the dysentery bacilli is being carried out in such places as Peking, Shanghai, Changchun, Canton, Szechwan, etc. (81) As in other areas throughout the world, China, with the exception of the Lhassa area, has also seen a reduction in numbers of the *Shigella dysenteriae*, though an increase in the occurrence rate of *Shigella sonnei* type infections is noticed. However, infection by the Flexner type of dysentery bacillus or bacillus *Shigella paradysenteriae* still predominates, in about 70% of all bacillary dysentery cases. Distribution of the *Shigella sonnei* type infections is not consistent throughout China. For instance, the occurrence rate of this type of infection in

Shanghai may be about 41%, while that in the Port Arthur-Dairen area is only 3.3%, the general figure being around 15% elsewhere⁽⁸¹⁾. According to a survey made of certain occupational groups in Peking in 1955, the carrier rate generally was about 1%. Examination of 706 normal persons in Dairen showed a carrier rate of 1.13%⁽⁸²⁾. It has been suggested that this disease be clinically classified into 5 types - acute typical dysentery, acute non-typical dysentery, chronic type with acute flareup, chronic shifting type, and chronic dormant type - the purpose of which is to expedite therapy and future prognosis⁽⁸¹⁾. In recent years, there is an increasing trend toward the toxic type of dysentery which is mostly seen in children from 2-7 years of age, though it is seen occasionally among older children and adults. The disease usually breaks out during the months from June to September, acute in onset with unnoticeable symptoms of dysentery. Death usually occurs within 24 hours, and the mortality rate has been as high as 20-30%⁽⁸¹⁾. Upon comparison, the death ID of white mice by the causative bacillus of this ailment is not any different from the causative organisms of ordinary acute bacillary dysentery. Post mortem examination of 35 cases of dysentery of this type showed very slight changes in the intestinal tract with the exception of edema and congestion; obvious edema was found in all body organs including the cerebrum and the brain stem, shrinkage in the adrenal cortex and enlargement of the thymus gland⁽⁸¹⁾. After much effort on the part of clinical workers who used artificial hibernation in conjunction with coordinated therapy, the mortality rate of toxic type cases has dropped tremendously and the lowest figure for Peking was 3.8%⁽⁸¹⁾. As for therapy of all types of dysentery in general, the traditional Chinese drug coptis taken orally or infused rectally has a greater therapeutic effect than the sulfonamides, except that tolerance to the drug is easily produced. According to preliminary observations, the occurrence of drug tolerance to coptis may be prevented by combining several antibacterial traditional Chinese drugs with coptis in the therapeutic dose⁽⁸³⁾. Allium scorodoprasum, L., brew of Anemone chinensis, Bunge, and tea are all effective in the treatment of dysentery⁽⁸⁴⁾. Therapy of chronic dysentery calls for coordinated measures generally. On one hand, immunity of the organism must be increased; on the other, infection must be controlled with practical methods which include combining syntomycin with a polyvalent vaccine, acupuncture, rectal infusion with a novocaine solution, etc.⁽⁸¹⁾ Research is also conducted on the utilization of vaccines and bacteriophages to prevent dysentery.⁽⁸³⁾ Other research pertaining to bacteria assay of bacteria strains untyped by standard serum, analysis of antigens, virulence of nontypical bacilli, and the search for less toxic bacteria strains are still going on⁽⁸³⁾. For diagnosis of amebiasis, the culture method is being used in China now⁽⁸⁵⁾, and its positive diagnosis rate is one time that of direct smear slide examination⁽⁸⁶⁾. For

the treatment of amebiasis, besides the commonly used compounds, Allium scorodoprasum, L., (87) Brucea javanica, (L) Merr., (88) Anemone chinensis, Bunge, (89) also show very good results with very little side effects. However, their long term therapeutic value calls for continued observation.

The occurrence rate of typhoid fever and paratyphoid fever has seen an obvious drop in recent years. Since chloramphenicol and syntomycin have been used in their treatment, the course of these illnesses has been markedly shortened(90). In 1953, small dose chloramphenicol therapy was initiated. Not only was economy in drug use practiced, side effects were also reduced(91). Recurrence of typhoid fever after chloramphenicol therapy is a new problem. According to preliminary observation, it is possible that intermittent chloramphenicol or syntomycin therapy may reduce the recurrence rate(92-94). Preliminary observations also show that experiments dealing with the blood eosinophil count and drop may help figure out the possibility of typhoid recurrence after chloramphenicol therapy, and determine the necessity of a second course of chloramphenicol(95). Clinical studies and typing of the Salmonella infections are carried out in localities throughout China with great earnest. The rate of infection by *Salmonella cholerasuis* is quite high following that by *B. typhosus*(96,97), or following only that of *B. typhosus* and *B. paratyphosus A* combined(104,105). However, in Kweiyang, cases of infection by *Salmonella cholerasuis* exceeded that by *B. typhosus*(99). The occurrence rate of food poisoning has been markedly lowered(107). Among sources of food poisoning, 33 strains of *Salmonella bacilli* have been isolated, and of these *Salmonella cholerasuis* is the most often encountered one(96,97,99,102,105,106-112). *Proteus vulgaris* may become the conditional source of infection in food poisoning(113). The "Ch'a-pu-cha-erh disease" prevalent in Sinkiang areas has been proved in 1958 to be poisoning by *B. botulinus* found in contaminated noodle sauce much liked by members of the Hsi-pai minority group. It is entirely possible that the death rate was as high as 40% or more(114). As for food poisoning by the toxins of staphylococci, there have been very few reports on this subject in China(115,116).

Brucellosis is not a seldom seen disease in China, except that it has never received much attention in the past. Recently, the distribution of this disease has been found to be quite extensive(117-126), especially in large cattle grazing areas, the infection rate of the local populace is higher than 20%(117), while that for swine, sheep and buffaloes is also relatively high. Research on diagnosis, therapy, and prophylaxis of this disease is being carried out in the cattle grazing areas, and preliminary observations have also been made on quick diagnostic methods(127), drug therapy which includes traditional Chinese medicine therapy

(118,126), and Mongolian medicine therapy, (128) and live vaccines (129). When compared with the agglutination test, the complement fixation test used in the diagnosis of this disease shows a higher percentage of positive diagnoses and greater characteristic differences (130).

The mortality rate of epidemic encephalomyelitis before use of the sulfonamide drugs, used to be as high as 30-70%, and in range of 7-30% before the Liberation (131). Since the Liberation, the seriousness of this illness continues to taper off, and the mortality rate is generally 2-7% (131). Seasonal occurrence reaches a peak during the period from February to April. Children are affected mostly, but in the villages, quite a few adults are affected too. (132) During the epidemic period, the carrier rate among healthy individuals is 11.2% in direct proportion to the occurrence rate. After the epidemic wave has passed, this carrier rate drops to 1.32-8.0%, the average figure ranging between 3-4%. (133) Therapeutically, there is a tendency toward the short course treatment with large doses of sulfadiazine (134).

The mortality rate of tetanus before 1953 was about 40-50% (141). Since learning from the progressive experiences of the Soviet Union, and coordinated therapy has been adopted (which includes local and other treatment of wound injury, drug hypnosis, block therapy, serum therapy, etc.), the mortality rate dropped generally from 6.6-20% (142-144). Among traditional Chinese drugs, "Five Tigers Dispell Flatulence" brew, "amber do-thoroughly" [name of formula, the chief ingredient of which is amber] brew etc., and acupuncture therapy all show definite results (145-150).

Anthrax in man is usually transmitted through contact with infected animals or spores on animal fur and skins. Therefore, the infected are mostly fur workers and peasants. Up to 1957, articles in China have reported 86 cases of anthrax. Of these, 20 cases were anthrax cerebralis, 7 cases were cutaneous anthrax, 6 cases were pulmonary anthrax, and 7 cases of primary anthrax (151). More reports followed after this (152-154), which showed that the prognosis of cutaneous anthrax was good. In a group of 17 cases, the use of penicillin, or penicillin and sulfadiazine, and streptomycin for treatment resulted in complete cure (151). However, in visceral types of anthrax, the course of the illness progresses rapidly, with a very poor prognosis for most of the cases.

According to reports from various localities, strains of staphylococcus aureus that are tolerant of penicillin may be as high as 68-70% (155,15), and there is also a tendency for the staphylococci to show drug tolerance to other antibiotics. Some strains of staphylococci that are tolerant of penicillin are sensitive to coptis (157), and this has opened up a new channel of treatment for staphylococcal infections. Whether coptis can also invoke the production of drug resistant bacteria strains is a problem still undergoing research.

In recent years, there has been a slackening in the occurrence of scarlet fever accompanied by a big drop in complications and mortality rate (up to 1956, this figure was only 0.5%). This may be partly due to the extensive use of penicillin. However, progress in general health conditions, improvements in medical care, natural letup in epidemic conditions are all factors that should not be overlooked(158,195). In most light cases of scarlet fever, a daily intramuscular injection of long lasting penicillin or procaine penicillin for 7 days has results similar to multiple injections with penicillin solution(159). As for care of the hospitalized patient, Shanghai uses the isolation technique on such cases for 6 days during which penicillin or sulfonamides are used for treatment. At time of discharge from the hospital, only 1.5% of these cases still harbor the organism. Follow up of 1,364 cases show there are no other serious sequela illnesses except for 6 cases complicated by nephritis(160). The cases with secondary illnesses were all treated with sulfonamides, which shows that sulfonamide therapy is not suited for isolation in short term hospitalization(160). In Peking, the isolation period has been shortened to 8 days, and under conditions of penicillin therapy, the rate of throat culture negative findings on the second day of hospitalization is 95.8%, and among exposed children discharged from the hospital, only 0.9% show recurrence of the illness. There was not a single case of nephritis complication(161). As for work on grouping and typing hemolytic streptococci, 394 strains of beta type hemolytic streptococci were isolated from the throats of scarlet fever patients in the Peking area during the period from November 1957 to June 1958. The findings show that group A types make up 96.1% of the total, group C 1.6%, group G 1.3%, and a G like group 0.7%. Of the types among 370 strains in group A, type 27 is seen to make up 28.9% of this total, followed by type 11, type 28, type 1, type 26, type 12, type 3, type 2 etc.(162) As high as 97.1% of these streptococci types are sensitive to penicillin, while only 2.9% are moderately sensitive or drug tolerant, and all of them are completely tolerant of sulfadiazine (of these 79.3% are highly drug tolerant, while only 20.7% are slightly drug tolerant) (162).

The occurrence of rheumatic fever among the various localities throughout China is not uniform. It generally makes up 0.47-2.4% (163,164) of the cases in the medical wards of the pediatric section in hospitals. In recent years, there is a tendency for this figure to come down. Members of the female sex make up most of the affected persons. Of the clinical manifestations of this illness among adults, wandering arthritis is seen in 97.7%(165) of the cases, carditis in 57.6%(164). In children, carditis is seen in 77%, arthritis in 55.7%, St. Vitus dance in 4.9%(166). Conduction disturbances are seen in 1/3 to 1/2 of electrocardiograms. The mortality rate ranges between 5-7%, and the cause of death is usually

cardiac failure(164,167). The method of diagnosis generally used follows the one suggested by Jones in 1944 and the 1955 revised standards set down by the Special Committee on Rheumatic Fever Research from the United States and Great Britain. However, this standard is not satisfactory as some nontypical cases are possibly overlooked in diagnosis and the purpose of obtaining an early diagnosis is impossible(168). Positive diagnosis of this disease is quite difficult at times. Specific or near specific experimental diagnostic methods are still in the research stage and the clinical study and application of methods such as the pa-kuan test ["pa-kuan" or "pa-huo-kuan" means "pull off fire jug," a surgical procedure in Chinese traditional medical practice similar to the dry cup method used in the West. According to the Chinese traditional method, the mouth of a bamboo or ceramic jug containing some sort of burning material, is applied to the intact skin in order to draw blood to the area. In time the fire, which provides heat without touching the skin, goes out due to lack of oxygen. The jug adhering to the skin by suction is then pulled off], antistreptolysin "O" test, 9168,169) antihyaluronidase, determination of C-reactive protein, etc., have been initiated in China.

As for collagen type diseases, reports on their occurrence have been increasing. Of these, most pertain to lupus erythematosus disseminatus(170-180), while others such as Weber-Christian's disease(170,181,182), periarthritis nodosa(183-186), scleroderma(187-188), dermatomyositis(170,189-193), etc., are also seen to occur. Improvements have been made in the method of cell examination for lupus erythematosus(194) which may possibly raise the diagnostic accuracy of this disease. At present, it has not been determined whether the increase in the incidence of these diseases is due to improved diagnostic techniques or not. According to medical articles and reports, it seems that there is a similar tendency toward increase of collagen type diseases among all nations throughout the world. It may be that this is not unrelated to the extensive use of antibiotics and pharmaceuticals. The prognosis for this type of disease is very serious, and understanding of their cause and the logical use of chemotherapy to prevent their occurrence are problems requiring our attention for the present and future.

Cryptococcosis is a systemic fungus infection that affects the central nervous system most seriously. Up to the present, 15 cases have been reported in China. With the exception of 2 cases with systemic involvement and one case of the pulmonary type with suspected meningitis, all the other cases are the meningitis form (195-201). The early symptoms of this disease are a general unwell feeling, no appetite, dizziness, headaches, fever, nausea and vomiting etc.(198) Cases of meningitis show cerebral irritability, and in severe cases, retinitis and papilledema are often present (198-201). The spinal fluid pressure is increased and examination

shows outwardly clear spinal fluid, an increased cell count, lowered glucose and chloride content, increased protein content, etc. (196,198). Most important in diagnosis is the finding of the cryptococcus neoformans in the spinal fluid (195). In the systemic types, the fungus may also be found in the urine, sputum, bone marrow, etc. (195). There is no specific treatment, and the prognosis is usually poor. Among the cases reported in China, with the exception of one case involving meningitis that is still living after discharge from the hospital a year ago (199), all the others have died and most of them died within six months after onset of the disease (195,198,200,201). Autopsy performed on three cases showed edema of colloid cells and phagocyte activity in critical areas of cerebral involvement (198).

Pulmonary involvement in moniliais albicans has come to the attention of the medical profession in China recently. Reports that have come in show 11 cases affecting adults, and 47 cases affecting children (202-205). It has been generally recognized that this disease is caused by prolonged and extensive use of antibiotics. In its diagnosis, not only must the causative organism be isolated, coordination must be made with clinical symptoms and therapeutic reaction. For example, in the sputum of a group of 156 cases of pulmonary tuberculosis, 36 strains of monilia were isolated, of which 8 were Monilia albicans, but clinically, only 3 cases were considered to have Monilia albicans as complications (202). Chest x-ray examination shows grain sized, patchy or round shadows and tuberculosis should be eliminated during differential diagnosis (202,204). At present, there is no specific treatment. In most cases, the infection will disappear automatically when use of antibiotics is halted. Cases that have become chronic will require treatment with intravenous injections of gentian violet, combined use of potassium iodide with sulfonamides, or nebulized inhalation of brilliant green etc. (202). Recently, the effectiveness of coptis as a therapeutic agent has been reported (205). In cases where destructive changes are undergone by the lungs, lung removal may be considered (202).

II. Cardio-vascular Diseases and Kidney Diseases

Since the Liberation, work in the field of cardio-vascular diseases has been outstanding. In the first place is the application and popularization of new diagnostic and therapeutic techniques such as electrocardiography. Before the Liberation, only a few medical schools and large hospitals had such equipment, but its use is quite general and extensive now. The single electrodeextremity conductance cardiogram has become a standard method. Electrocardiograms have been made in sufficient numbers in various localities for them to attain the ECG value constant necessary for clinical reference (206,207). Since the initiation of examination

by intracardiac catheterization in 1951, use of this technique has spread gradually to the different medical colleges. Other techniques such as cardiophonography, angiography, cardiosphygmography etc., are also being used gradually. New surgical and medical therapeutic methods which includes various kinds of hypotensive drugs, anticoagulants, diuretics, and the various new cardioangiologic surgical techniques have all been tried and adopted in turn. Since the surgical treatment of mitral stenosis was first tried in Shanghai in 1954(208), its use has been extended gradually to the various big hospitals in China with good results. In the selection of surgical cases, care of patient before and after surgery, and observation of therapeutic effectiveness, the medical worker plays an important role while obtaining valuable experience at the same time.

The relative incidence of the various kinds of organic heart disease in various localities have been analyzed. In general, the incidence of rheumatic heart disease is the highest, comprising 30-50.7% of all cases, followed by hypertensive heart disease with an incidence percentage of 20.1-21.3% (Peking statistics include a total of 46.9% for hypertensive disease and hypertensive heart disease), then arteriosclerotic heart disease with an incidence percentage 4.6-15.5%(209,210). Others such as pulmonary heart disease, syphilitic heart disease, congenital heart disease, etc., vary in occurrence according to differences in locality. For example, the higher incidence of pulmonary heart disease in Manchuria and Chengtu(212,213) may possibly be due to differences in temperature, the inconsistent selectivity of cases and standards of diagnosis.

The occurrence of rheumatic heart disease is seen mostly among the female sex. About half of them do not have any history of rheumatic fever, 98% of them show mitral valve changes, and 30% of these show complications by aortic valve damage(214,215). Due to developments in heart surgery, diagnostic techniques for mitral stenosis have seen great improvement. In the field of listening diagnosis, studies have been made on the diagnostic significance of the mitral valve opening sound and the Graham Steel murmur, and a comparatively accurate estimate of the degree of narrowing of the mitral orifice and the flexibility of the valvular membranes is made. Not only does this provide important reference data for surgical procedures, it goes further in recognizing the relationship between symptoms and the disease course(216-218). Right intracardiac catheterization, electrocardiography, and electrocardiophonography, are also of definite aid(219) to estimating the degree of mitral orifice narrowing and differentiating between proper opening and closing functions of the valve. In Shanghai, the application of cardiosphygmography has made meaningful observations(220) for preoperative diagnosis of cases undergoing mitral valve surgery. In the Peking area, a larger series of studies on the hemodynamics of mitral stenosis cases before and after surgery have been made(219).

Clinical research on hypertension and hypertensive heart disease has also seen development. While there is very little accurate statistical data on the occurrence rate of hypertension on a national scale, such survey work is being carried out in some areas. For example, figures for Shanghai show that among 120,000 adults (mostly workers or laborers) checked in the urban area of Shanghai, 6.95% of this group have hypertension, while only 1.95% of the peasants living the surrounding countryside have this ailment (221). Survey of a small segment of the population, shows the incidence of hypertension to be 1.1% in Tientsin, and 5-6% in Peking (222). According to preliminary observations, it is possible that there is little difference in the hypertension incidence rate in China and foreign countries. Causes of death in cases of hypertension in China show cerebral vascular accidents to be leading (65-70%), followed by cardiac failure and myocardial obstruction. This breakdown in figures is just opposite of those for the United States and Great Britain (223), though similar to those for Japan (according to a statement made by a certain foreign scientist). Among the Chinese, the progression of coronary atherosclerosis is lighter, and the incidence rate is lower, which may be the chief reason why fewer cases of hypertension die from heart disease. In the field of etiology, at the 1952 symposium organized by the Society of Internal Medicine of the Chinese Medical Association, it has been determined that confused function of the cerebral cortex is the chief cause of illness (224). In the field of therapeutics, besides using the sympathetic ganglion blocking agent serpentaria, native grown Rauwolfia verticillata (Lour.) Baill (225, 226), Inula Helenium L (Aristolochia debilis, S et Z) (227-229), Sausilla Ruthenica (230-232) all show therapeutic effectiveness in varying degrees. Treatment by recognition of illness and acupuncture among methods of traditional Chinese medicine also show relative effectiveness.

Though clinical research into atherosclerosis made a late start, it has already accumulated much data information. The relative incidence of this disease is quite low, only about half as frequent as that in other countries. It may be that there is a relationship between the food and habits of the Chinese people (209, 233). According to observations made in Peking, Shanghai and Nanking, the serum cholesterol content of the Chinese is actually lower than that of Europeans and Americans (209, 210, 233). However, this conclusion must wait until extensive survey has been made among the masses of people to be proved. Observation of a group of 885 cases after autopsy shows that the degree of atherosclerosis acquired by the Chinese is less severe than that found among the white race. Considered chronologically, the same severe degree of coronary arteriosclerosis occurs 15-20 years later among the Chinese than the white race (234). Regarding the incidence of coronary arterial

disease, places such as Shanghai, Peking, Tientsin, etc., already have somewhat accurate figures which seem to reflect a gradual increase which is still lower than that of other countries (209, 210, 235, 236). About 1/3 of the cases of myocardial obstruction do not have pain (235, 237), the incidence of which is higher than that reported in the journals of other countries. Autopsy data proves that syphilitic disease changes of the aorta may cause myocardial obstruction and damage (235, 237). Examination by cardiosphymography to diagnose early coronary artery disease is being studied by different localities at present. The diagnosis and treatment of congenital cardio-vascular disease have also seen great progress. For example, toward the clinical picture of simple congenital pulmonic stenosis, its differential diagnosis and surgical correction, there is a better and more precise recognition (238-240). The diagnosis and treatment of other anomalies such as simple interauricular septal defect (241, 242), interventricular septal defect (243), patent ductus arteriosus (244), valvular pulmonic stenosis, etc., (245-247) have all seen marked improvement and progress. A deeper recognition of the tetralogy of Fallot and Eisenmenger's complex is also had. Recently, Peking also initiated examination techniques such as catheterization of left heart chambers, angiocardiography etc., to advance diagnostic accuracy another notch and expand the course of surgical treatment.

The accurate diagnosis of chronic pulmonary heart disease is quite difficult sometimes. Generally, the determination of arterial oxygen content with other examination techniques will resolve this problem. Clinical data has shown that the saturation point of arterial oxygen in this type of heart disease is much lower than that of other types of heart diseases (249). Due to the use of antibiotics to control pulmonary infection, artificial respiration equipment to treat respiratory acidosis (250), and nebulized ephedrine (251) etc., in therapeutics, the immediate prognosis for this disease is much better, though the ultimate prognosis is still serious.

While ke-shan disease has been discovered as far back as 1935, it was not until after the Liberation that it received the proper attention. At present, studies on the epidemiology, etiology, treatment, and prophylaxis of this disease are being carried out by occupational organizations together with different medical colleges. The distribution of ke-shan disease is fairly extensive. According to the survey of more than 1000 residents of one disease breakout area, 20% of them are cases of dormant Ke-shan disease (252). The chief pathological change in this disease is a constantly recurring myocardial damage which shows up clinically in varying degrees of improper heart function and a series of cardiac arrhythmias. As for the cause of this disease, there are no settled theories. One theory feels this is most possibly a toxic infection transmitted by insects (253) relative to the season of occurrence,

locality and the immunity of the inhabitants (253); another theory considers this to be a muted disease change caused by group A streptococcus infection (254). Some people advocate the theory of bacteremia by fungus toxins (255) or the theory of carbon monoxide poisoning (256). The final solution to the cause of this disease is the important key to the prevention of this disease.

Acute bacterial endocarditis originally was an incurable disease, but since the use of antibiotics for treatment, the cure rate has gone above 50% (257). The causes of death are chiefly cerebral embolism and cardiac failure. With early diagnosis, large doses of penicillin, and the use of other antibiotics, it is hoped that the cure rate may possibly be raised.

The incidence of chronic constrictive pericarditis is 1.25-1.6% (258-259) that of all hospitalized cardiac cases. The cause for this disease is usually tuberculosis, though pyogenic infection may be the cause occasionally. Early surgical treatment has obtained very good results. Changes in renal hemodynamics possibly is the basic factor pertaining to edema in this disease, as the filtration rate of the kidney glomeruli and the kidney blood volume both show an obvious drop and this kind of changed physiology shows an obvious improvement after surgery (260). The therapeutic value of digitalis on chronic constrictive pericarditis has been a subject of dissension in the past. After checking on the cardiac output of 30 cases of chronic constrictive pericarditis before and after use of digitalis, it may, in general, be established that digitalis is worth application and use in cases of constrictive pericarditis (261).

The expansion of electrocardiography examination has stimulated clinical research on cardiac arrhythmias. Sporadic auriculoventricular blocks accompanying ventricular tachycardia are often seen, and most such instances are induced by intoxication to digitalis (262). Many observations have also been made of arrhythmias caused by hypokalaemia and drugs such as quinidine and their subsequent clinical care (263-266). In the treatment of schistosomiasis on a large scale, attention has been given the toxic effect of antimony compounds on the myocardium. Positive results on the effectiveness of intravenous atropine for first aid in counteracting antimony induced sinus arrhythmias have been established since 1956 when this approach was first tried in Wusih and Shanghai (267-269). Reports on complete auriculoventricular block accompanying Adam-Stokes syndrome are increasing. This may possibly be due to rheumatic myocarditis (270-273).

Other work related to the heart include the initiation of examination by electrocardiosphygmography (274-276), improvements in cardiometry by x-ray (277), special preparations such as k-strophanthin (278-280), strophanthus divaricatus (Lour) (281-283), leaf of

Nerium medicine(284) for clinical use. Observations have also been made on other cardiovascular diseases such as cardiac failure resulting from toxemia of pregnancy(285,286), anemic heart disease (287), heart disease in hyperthyroidism(288), pulseless disease, congenital patent ductus arteriosus, etc (293).

As for treatment of chronic glomerulonephritis, practitioners of both traditional Chinese medicine and western medicine have cooperated together. In 1955, the Peking Medical College first used traditional Chinese medicine therapy on chronic glomerulonephritis. The immediate and short range effect on 11 cases showed reduction in edema, lowering of blood pressure, drop albuminuria in individual cases, and a restoration of kidney function(294). In 1956, this conclusion was further proved by trial of same treatment on another 24 cases of adult chronic glomerulonephritis(295). Similar reports have continued to arrive from other areas of China(296-308). According to a final tabulating recently, of all cases of chronic glomerulonephritis treated with the traditional Chinese medicine method, 41.2% of cases with edema showed a complete recession of edema, 24.1% showed marked recession of edema, 12% showed complete disappearance of albuminuria, and 8.3% showed a marked change for the better. All of these signs show the immediate short range therapeutic effect. Recurrence may take place in some of the cases if subject to long term observation. It is possible that in some cases undergoing long term treatment, the improvement will continue. There have been reports of complete recovery(303-307). Traditional Chinese medicine considers nephritis to be an illness of weakness, and the principle of its therapy is based on recognition of the illness followed by offensive and supportive measures. Drugs most often used are ginseng, Astragalus adsurgens, Pall Paeonia albiflora, Pall five bark brew, spleen fortifying brew, travel pills etc., and there are reports that acupuncture has also been effective for eliminating edema(309,310). A start has also been made in other methods of treatment such as nitrogen mustard treatment and hormone treatment for nephritis (311-319). Therapeutic effectiveness of the former is comparable to that of traditional Chinese method where the albuminuria decrease rate is higher, but the recurrence rate is also higher after cessation of medicine. With hormone therapy, the rate of edema elimination may be as high as 100%, and the albuminuria decrease rate may be as high as 40-50%, the effects of which are seen 2-5 weeks after drug therapy. However, problems related to recurrence after cessation of drug and the side effects of hormone therapy have yet to be resolved.

Acute glomerulonephritis is on the increase in recent years. Between 1955-1956, there were epidemics in Wuhan(320), Kweiyang(321), Shanghai(322,323). In the Kweiyang report, upper respiratory infections made up the predisposing factor in 68.9% of the cases, and in the Hunan report, skin infections made up the predisposing

factor in 70.5% of the cases (321). The prognosis of acute glomerulonephritis is comparatively brighter, and 80-90% of the cases make a complete recovering in two weeks time (322-324). The chief cause of death in fatal cases is acute left cardiac failure which is due primarily to myocardial damage and secondarily to high blood pressure and sodium retention (325-328). Hypertension occurs in 4.3-8.7% of acute glomerulonephritis cases (329-330).

According to a report on more than 400 cases of pyelonephritis in 1957-1958, its incidence is a little over 1% of hospitalized medical cases (331-334). It is seen more frequently among the female sex than the male, and adult female cases are 5-10 times as numerous as males. Among them, most are pregnant women. Culture of urine is positive in about 90% of them, the offending organism usually being the *Bacillus coli*. Generally, early and continued treatment with antibiotics is suggested. There are reports of cases resistant to treatment by methods of western medicine that have responded to traditional Chinese medicine (335).

The experimental manufacture of the artificial kidney has been attempted (336) and it is being tried to save cases of acute kidney insufficiency. For uremia arising in cases of chronic kidney insufficiency, two traditional Chinese drugs "tu-shen" brew and a kidney fortifying pill "chin-kuei-shen-ch'i-wan" (337) are found to be effective. Others feel that ginseng and *Astragalus adsurgens*, Pall. have the effect of stimulating kidney function and lowering the blood nitrogen. This aspect is still undergoing observation (338).

In the field of practical research, measurement of anti-streptolysin in the blood serum of cases of glomerulonephritis (339) has been carried out in Shanghai. Antinephrotic antibodies in blood serum has been experimentally measured in Peking where rabbit serum that is resistant to kidney tissue of white mice has also induced experimental nephritis (338). The purpose of this is understanding of the disease inducing mechanics in glomerulonephritis so that problems relating to diagnosis and prophylaxis may be resolved. According to the experience of other countries, the relationship between Type 12 of group A streptococci and glomerulonephritis is quite close. However, in 1958 during the scarlet fever epidemic in Peking, some of the scarlet fever cases showed infection by Type 12 streptococci, but very few of them came down with glomerulonephritis (340). The effect of nephritis on protein and fat metabolism is also being studied in Shanghai, Peking, and other places. According to preliminary results of paper electrophoresis, the protein and fat content in blood serum and urine of chronic glomerulonephritis cases both show changes (341, 342).

III. Diseases of the Digestive System

Gastric ulcers and duodenal ulcers make up a disease of the digestive system seen most often in China. Their incidence is seen in 0.63-2.1% of all hospitalized patients (343,345), which is comparable to 5.8% (344,345) of hospitalized medical cases. However, most of these cases of gastric and duodenal ulcer are treated as outpatients, so the actual occurrence rate is higher. Cases of duodenal ulcer are seen more often than cases of gastric ulcer, and there is a tendency for it to be increasing daily. The incidence ratio of these two types of ulcers is roughly 1.56-5.6 : 1 (344,346). In recent years, work on these types of ulcer in China has concentrated chiefly on improving diagnostic techniques, tabulating clinical characteristics, and checking into the illness course. In the field of etiology, the theory of derma and viscera interrelationships advanced by the Soviet Union has been studied, accepted, and now used in clinical treatment. Recently it has been suggested in other countries that gastric and duodenal ulcers are related to blood groups. Preliminary exploration along this line in China shows that among 211 cases of ulcers, 41.23% of them belong to type "O" (347), and in another 177 cases, this figure is 50.3% (345), which is similar to that in foreign observations. In diagnostic techniques, examination by gastroscopy and measurement of gastric hydrochloric acid with quinine resins are being used more and more by clinicians. Tissue therapy has been tried in a larger series of cases in different locations. Though its short range therapeutic effectiveness is not any higher than that of other methods (around 81%) (348,349), its recurrence rate is lower than that of cases treated by other methods. Among a group of 100 cases, the rate of recurrence within a year was 1% (350). The short range therapeutic effectiveness of hypnosis therapy is as high as 85%, but its continued effectiveness is not satisfactory (351). Liquid extract of licorice may also reduce symptoms (352). The results of treatment along principle of illness recognition and suggestive treatment used in traditional Chinese medicine (353) are also good. According to preliminary observation, the immediate therapeutic effect of a single prescription of cuttle fish bones may be as high as 95% (354), and in a few cases of duodenal ulcer followed up with x-ray, the shadows had disappeared in about 80% of the ulcers (355). Studies of acupuncture therapy for ulcers are still going on. Preliminary results with "ch'i-kung" therapy are good, and it has been able to cure some cases that other methods have failed (356). The key to ulcer treatment is in prevention of recurrence. Therefore, work in this field for the present and future should concentrate on increasing long term therapeutic effectiveness.

Unless there are definite signs suitable for surgical intervention, the treatment of duodenal ulcer is generally limited to medical management. Management of gastric ulcer is more complicated, as it is quite difficult at times to differentiate between a benign ulcer and a malignant ulcer. The surgical treatment of ulcers, whether from the standpoint of techniques, pre-operative and post-operative care, or long or short range therapeutic effectiveness is greatly advanced over that of pre-Liberation days (357,358). There are also reports on complications following gastrectomy stating that very few resistant and serious cases have been seen.

The proportion of non-jaundiced form of hepatitis has shown a marked increase in recent years. For example, during the 1956-1957 epidemic in Peking, the non-jaundiced form comprised 2/3 of the cases found in a certain agency. During the 1957-1958 epidemic in Shih-chia-chuang, the proportion of the jaundiced form and non-jaundiced form was 1 : 40. During the 1958-1959 epidemic in Manchuria, the proportion of these two forms among hospitalized cases was 1 : 24. The proportion among most outpatient cases was generally 1 : 100 and above (359). Much attention has always been given infectious hepatitis by the clinicians. Follow up of 1,071 cases of infectious hepatitis for one year showed that 1.9% of them showed abnormalities with regard to clinical symptoms, physical signs and laboratory tests (360). Follow up of another group of 125 hepatitis cases (72 of them had been followed up for more than 2 years) showed that 60% of them experienced complete recovery, and among 50 cases that had not recovered, 7 showed recurrence, 3 developed cirrhosis of the liver, and 3 cases died (361). In another group of 65 cases (37 of them had been followed up for more than 2 years), 44.6% of them experienced complete recovery, 23.1% progressed into chronic form of hepatitis, 12.3% showed recurrence and 4.6% developed cirrhosis of liver (362). Post mortem examination of more than 2500 cases in Canton showed, from the standpoint of pathology and morphology, that what is referred to as necro-cirrhosis made up 23.75% of total cases of cirrhosis of liver (363). There seems to be a relationship between hepatitis and cirrhosis of liver, but whether hepatitis can cause or become nodular (Laennec's) cirrhosis is a problem yet to be determined. The incidence of cirrhosis of liver in China is about 0.36-0.61% (364-366) of total hospitalized patients, and in schistosomiasis endemic areas, schistosomiasis is one of the principle causes of it. Reports from Shanghai and Kiangsu province show schistosomiasis caused 47-56% (365,367) of cirrhosis of liver cases, and the figure had been as high as 80% (367). In Kwangtung province, this figure was 25% (364). The incidence of primary carcinoma of the liver is 0.07-0.3% (368-372) of hospitalized patients. Statistics from 1958 post mortem examination of 21,706 bodies done by 38 hospitals and medical schools showed 260 of them to have carcinoma of the liver, which was 1.2% of the corpses.

examined(373), a percentage which is higher than that for the United States. According to observations by clinicians, about 80% of the carcinoma of liver cases are directly related to cirrhosis of the liver(372,374). According to data on pathological anatomy, 10-12.6% of hepatic cirrhosis are complicated by cell carcinoma of the liver(368,374). In the South, in places such as Kwangtung, it is possible that cholangio-cell carcinoma is related to clonorchiasis sinensis. According to data on 200 cases of primary carcinoma of liver, 46 cases also had clonorchiasis sinensis. In 30 of these cases, at point of the bile duct reached by the fluke in the second stage, each individual phase of epitheliosis of epithelial cells may be seen(375). However, in the schistosomiasis epidemic areas there are very few reports on the occurrence of parasitic cirrhosis together with primary carcinoma of the liver(376). Whether the fact that these two differ is due to a different kind of tissue that parasites stimulate is a problem worth further study.

As for a series of new methods that have been adopted for the diagnosis of liver diseases, besides the different kinds of flocculation tests(377-379), the carbolic acid turbidity test based on the principle of plasma globulin sedimentation with phenol compounds and first applied in China, is simple and easy to use(380). Other methods such as the determination of converted aminase in serum (SGO-T)(381-383), the determination of serum iron(384,385), the determination of 17 - ketosteroids and phenosteroids in urine(386), liver biopsy(387-389), the determination of portal circulation time(390-392), opaque x-ray of hepatic veins,(393) are all seeing clinical application. In the field of therapeutics, treatment of infectious hepatitis has been initiated with traditional Chinese medicine (such as brew of Artemesia capillaris)(395), and chronic hepatitis with ovophospholipid(396). The results of treating ascites in cases of late hepatic cirrhosis with traditional Chinese drugs, including findings from schistosomiasis prevalent areas, are better. Among 94 cases treated in Shanghai with methods of western medicine and traditional Chinese medicine together, ascites subsided completely in 60.6% of the cases, and ascites showed reduction in 18% of the cases. Follow up visits of 65 cases for a period of 2-18 months (average of 8 1/2 months) showed that absence of ascites in 71% of them had been maintained(397). Treatment of carcinoma of liver with lobular hepatectomy is being used in several hospitals(398). The determination of blood ammonia content is a definite supportive aid in the diagnosis of hepatic coma(399-401). Treatment of some of the cases with glutamic acid seem to be effective(402), but there are reports also on its ineffectiveness (403). Liver diseases are high incidence diseases endangering the people's health, and the causative factor of chronic liver disease. It is obvious that infectious hepatitis should not be overlooked.

Without a special tried and proven diagnostic method, the prevention of infectious hepatitis faces great limitations. For this reason, isolation and determination of the causative organism in hepatitis make up work of a key nature. Recently, the technique of chick embryo inoculations have been tried in various localities and preliminary data(404-406) on this aspect is accumulating. Though the results have yet to be proved and differentiated, they show promise for the future.

There have been quite a few reports on amebic hepatitis in recent years. According to preliminary observations, the complement fixation test performed with antigen extracted from pus exudate in liver has a differential value. With the exception of portal cirrhosis, other diseases including amebic dysentery show negative reactions(407). Therapy still consists chiefly of internal medicines such as emetine, atebrine, chloroquine, etc. In a group of 124 cases, the mortality rate was 4.8%, and among 49 cases that also had complications (including abscess perforation, secondary bacterial infections, etc.) the mortality rate was 8.2%(408). Bacterial hepatic abscesses are not often seen. When seen, surgical drainage is suitable treatment, though aspiration of abscess contents followed by antibiotics therapy has also resulted in recovery(409,410).

The chief cause of hemorrhaging in the upper digestive tract is bleeding from gastric and duodenal ulcers which make up about 2/3 of such cases(411). Next, rupture of varices in portal hypertension follows, making up 17.8% of the cases(412). Due to the broad use of blood transfusions, treatment with medical therapy is more satisfactory. In cases of bleeding from varices, the insufflating bag pressure method is used as a supportive aid in emergency treatment(413). With close cooperation between medical and surgical management, surgical treatment of acute hemorrhaging in the upper digestive tract has shown definite results. Take as an example, data released from Shanghai recently. Among 22 cases that had undergone surgical treatment, with the exception of one case of portal hypertension, all the others lived(412). Before the Liberation, due to limitations on techniques and facilities, it was impossible to operate on and save most of such cases requiring immediate surgical care. At present, surgical treatment of portal hypertension is still not satisfactory, but operation techniques and results have shown improvement(414). The surgical technique of diversion has also shown a marked effect toward improving the condition of the esophageal varices and preventing excessive bleeding(415).

Characteristics governing the incidence of cholecystitis and cholelithiasis in China are the younger age of occurrence and a smaller difference between sex of the affected (the ratio between the male sex and the female sex does not exceed 1 : 2)(416).

Cholecystitis combined with cholelithiasis only comprises 55-74% (417-419) (in other countries this percentage exceeds 80%) of total cases. The incidence of biliary calculi in China is greater than that reported in other countries, with choledocholithiasis and hepatobiliary lithiasis comprising about 50-60% (416, 418, 420-422) of the cases, of which 1/4 of them also have cholelithiasis. More than 1500 cases of biliary ascariasis (423-429) comprising 10-45% (418, 423, 430-433) of surgical ailments of the bile ducts have been reported. Quite a number of these cases occur in combination with biliary calculi in the common bile duct, and some of these stones are formed with roundworms as nuclei. In the tabulating of 132 cases of choledocholithiasis in a second group, 23.3-69.9% of them are connected with the Ascaris (422, 434). Insertion of a duodenal tube for direct introduction of barium is used for the observation of roundworms in the biliary ducts under the fluoroscope and also for treatment (435). Treatment of biliary ascariasis with conservative methods such as atropine, magnesium sulfate, antibiotics, the traditional Chinese medicine black plum pill etc., are effective (436). For this reason, unless there is absolute indication of its suitability, surgical treatment is not necessary. The foreign body duodenal clamp first invented in China has been used recently to remove the roundworm directly with success (435). Cholecystitis caused by Clonorchis sinensis and Lamb's and Giard's Protozoa has also been reported (437-439).

Due to the dependability of serum amylase and serum lipase determination tests to diagnose diseases of the pancreas (440), reports on the incidence of pancreatitis are seen to be increasing (441-450). Its incidence make up 0.32-2.04% of the total of hospitalized patients, and about 28-45% of these occur in combination with cholecystitis or biliary duct diseases. Conservative therapy is used mostly in treatment. This includes fasting, reduction of pressure in the stomach and intestines, intravenous infusions, the use of analgesics, antispasmodics, antibiotics, etc. In individual cases where there is biliary obstruction, pus accumulation in the interstitial spaces, or difficult diagnosis, surgical treatment must be resorted to. The mortality rate is 0-12.5%, with most cases being hemorrhaging and necrotic types accompanied by serious shock (441, 442).

In 1958, the Society of Pathology of the Chinese Medical Association compiled the post mortem autopsy data on 21,705 cases collected from 38 hospitals and medical colleges throughout the nation and found that among 989 cases of cancer, the incidence of cancer in the digestive system showed 17.5% for gastric cancer (following only carcinoma of the liver and lung cancer), 3.1% for cancer of the esophagus, 7.2% for intestinal cancer, 26.2% for carcinoma of the liver, 2.5% for cancer of the gall bladder and biliary ducts, 4.3% for carcinoma of the pancreas (373). The pathology department of the Chinese Academy of Medical Sciences

tabulated the statistics for 13,779 biopsy specimens obtained during the last 40 years and found that among specimens positive for cancer, the distribution showed 4.7% for cancer of the esophagus, 3.6% for gastric cancer, 4.2% for cancer of the intestines, 0.8% for carcinoma of the liver, 0.12% for cancer of the gall bladder and biliary ducts (451). According to the findings of these two groups, the incidence of these diseases with regard to sex, with the exception of cancer of the gall bladder and biliary ducts being found more often among the female sex, is greater among the male sex. The clinical picture shows that gastric cancer make up 38.3%-48.1% of tumors of the digestive tract (452,453) and primary malignant tumors of the colon make up 15.5% (454) of this total. Surgery is used to remove gastric cancer in 54% (455) of cases, 44.1% of them still living three years after surgery, and 15.1% five years after surgery (454). The operative rate for cancer of the colon is 53%, its long range results are not good as the percentage of cases still living after radical surgery is only 15.6%. For this reason, even earlier diagnosis is the direction to be taken by greater effort for the present and future. The clinical and early diagnosis of carcinoma of the pancreas included a better understanding of diagnostic x-ray and radical pancreateoduodenectomy which is being used now (456-459). Primary tumors of the lymphatic system along the gastro-intestinal tract such as Hodgkin's disease (460,461), lymphosarcoma (462-464), reticulum cellsarcoma, etc., (465,466) are also being reported. Attention on the relationship between schistosomiasis and cancerous tumors of the intestinal tract has been aroused in the schistosomiasis epidemic areas. For example, among 179 cases of schistosomiasis, 15.5% also showed cancerous tumor of the intestinal tract, and among 162 cases of intestinal cancer, 16.9% also showed the presence of schistosomiasis (467). Increased ulceration of intestinal membranes in chronic schistosomiasis and polyp formation may possibly be predisposing factors to cancerous tumors.

IV. Diseases of the Respiratory System

Among respiratory diseases, pulmonary tuberculosis is still one of the diseases seriously endangering the people's health. Due to improvements in therapeutic facilities and health measures, the extensive use of chest x-ray examination, and other new diagnostic techniques (such as layer x-ray series (468-473), opaque bronchopneumography (474,475), bronchoscopy (475,476), rapid culture of tuberculosis bacilli (477,479), hemagglutination test etc. (480-482), to uncover tuberculosis in its early stage, prophylaxis and treatment of the disease are made easier and progress is seen. The tuberculosis classification method of the Soviet Union is generally used in China. While great progress is seen in the treatment of tuberculosis, hygienic health measures and good nutrition, the combined use of anti-tuberculosis drugs, and collapse therapy (the

tendency has been toward pneumoperitoneum since the Liberation) are still often used methods(483). Methods of traditional Chinese medicine (including acupuncture) when used together with new anti-tuberculosis drugs have also seen very good results(484).

Treatment of the tubercular cavity is harder. Use of general methods of medical treatment including chemotherapy and collapse therapy, the cavity closure rate is far from being a satisfactory one. In recent years, the method of instilling anti-tuberculosis drugs into the lung bronchi has been tried in China, and after continual improvements on the instillation technique and the dosage control of drugs, the cavity closure rate has been increased to 90.9%(485) at the different treatment units at present. After the Liberation, surgical treatment of tuberculosis and tubercular empyema has seen great results. For example, the statistics of 4826 cases of pneumonectomy show that the surgical mortality rate was 1.54%, and the results of post-operative follow up a year later were good in 80-90% of the cases(486). One of the conditions of successful surgical treatment is correct management of suitable cases. In this field, workers in internal medicine have the responsibility of extending their fullest cooperation to obtain the best benefits for the sick.

Determination of lung capacity and function is an important examination technique employed in chest specialties. In Shanghai, studies have been made on the normal value of circulation and air exchange function among the Chinese. Determination of unilateral lung function has important clinical value and it has been used to determine treatment and prognosis for certain tuberculosis cases and other lung diseases. It is also an aid to appraising the work energy of the patient(487-492).

The incidence of lobar pneumonia in China is about 2.63-15.5% of all hospitalized patients. Its incidence is greatest during the winter and spring. Since antibiotics have been used for its treatment, the cure rate has been raised and the mortality rate varies between 0.4-8.06%(493-510). The chief cause of death is circulatory collapse in bacteremic pneumonia. About 0.5-1%(497,500-502,506,509) of lobar pneumonia cases are also complicated by purulent meningitis. Reports on the incidence of primary atypical pneumonia are also increasing. Besides the clinical symptoms and x-ray confirmation, diagnosis is dependent on serological examination of blood which shows that 88% of cases show a titer above 1 : 32 on serum agglutination test performed the second week after onset of illness. The titer goes down after three weeks, and is seldom positive after five. A positive reaction to the MG type streptococci is obtained with the agglutination test done on 77% of the cases(511). As the difference between this disease and pulmonary tuberculosis is not easy sometimes, the K test (reaction of blood to strong sodium citrate) has been suggested to be of some help. Its type IV reaction is seen mostly among tuberculosis cases, while primary

atypical pneumonia cases generally show a normal type reaction(512). The treatment of empyema has also seen great progress(513-523). With early and sufficient antibiotics therapy, the need for surgery has decreased. In order to shorten the therapy period and stimulate cavity healing, injection or instillation of antibiotics into the bronchial tubes and injection of antibiotics into the lungs have been tried with satisfactory results.

Care of diseases of the bronchial tubes has also seen corresponding progress(524-530). Opaque bronchoradiography and bronchoscopy are being used on a generally broad scale now. Many hospitals have changed to using a barium gel as the opaque agent with good results and no side effects(524). Tuberculosis of the bronchial lining can be diagnosed earlier now, and when treated in time, most cases result in complete recovery. Differentiation of tubercular and non-tubercular bronchiectasis is difficult at times. According to an analysis of a group of 184 cases, pathological changes among the non-tubercular cases are mostly seen in the lower lobes, and 50% of them have had the ailment before the age of 10; among the tuberculous cases, the ailment made its appearance after the age of 31 years in 75% of the cases, with changes mostly in the upper lobes(475).

Some work has also been done in the treatment of bronchial asthma. According to experiences with a group of 546 cases receiving tissue therapy, the effectiveness of placental plasma seem to be greater than placental extract. The effectiveness increases with the number of courses of treatment(531). Corticotropin intravenous drip therapy has the effect of relieving or reducing breathing difficulty in stubborn asthma cases that do not respond to other drugs anymore, to help them over a dangerous hump(532). Traditional Chinese medicines and acupuncture sometimes also show dramatic results(533). The chief traditional Chinese drugs used are Bupleurum falcatum, L., ephedra, and cortex magnoliae. Search for a lasting and effective radical method is the problem facing bronchial asthma therapy which calls for much effort now and in the future.

Based on post mortem autopsy data available in China, the proportion of lung cancer is 18.4% that of all other cancerous tumors, a figure following only that for carcinoma of the liver(373). It is generally recognized that there is a relationship between lung cancer and cigarette smoking, air pollution. Based on an analysis of 185 cases of lung cancer, 61 cases did not smoke which explains that smoking is not the only dominant factor in the incidence of lung cancer(535,536). Data from a clinical survey also uncovered the fact that 34% of the lung cancer cases had always lived in villages away from any industrial dust and black topped highways, without any history of contact with carcinogens(536). For this reason, the etiology of lung cancer is still quite complicated, and clinical practice related to lung cancer is directed toward early diagnosis and early treatment. The fragmentized cell examination

of sputum is an aid to diagnosis, and under ideal conditions, the accuracy rate is as high as 84.3% (537). However, the accuracy rate generally is not that high. Bronchoscopy is still a reliable way for uncovering lung cancer, but its positive finding rate is also just 70% (535, 536). At present, the lung cancer removal rate is still just 10-30%, which is far from satisfactory (535-539), and the long range life expectancy is also lower. All this underlies the fact that the control of lung cancer calls for much more effort.

V. Diseases of the Blood Forming System

The progress of hematology is seen first in the training of specialists and technicians, and the establishment of the Institute of Hematology and Hematometachysis. Discussion on the naming of blood cells has been initiated after the Liberation (540-542), and after much discussion and revision by those given the task, a simple tentative outline of blood cell names was edited preliminarily in 1957, forming the basis to unify blood cell terminology used in China. For several years now, studies have been made on the various physiological constants in hematology (534-547), the blood and normal bone marrow pictures etc., of normal newborn infants (546), school age children (547) and adolescents (548-551), and surveys have been compiled on the red blood count and hemoglobin index (544) of inhabitants living in the alpine areas and the white blood cell classification (545) among certain minority nationality groups such as the Tibetans. In techniques, slide examination of bone marrow puncture and the method of lymph node puncture are widely used in clinical practice (552-554). A start is also being made in the clinical application of radioactive phosphorus (32) and cobalt (60).

On the problem of anemia, the distribution of horse bean favism (a hemolytic anemia caused by the Vicia faba, L. or its pollen) is found to be quite extensive in China, occurring mostly among the male sex, particularly boys (555-566). Paroxysmal nocturnal hemoglobinuria is seen to be on the increase since the Liberation (567-570), though rarely seen in the past. Studies (567) have been made of the mechanics and hemolytic factors of this disease which show that the nontypical cases are easily confused with aplastic anemia, but Rous' urine test and Ham's blood test are decisive aids to diagnosis. Intravenous infusions of racemic glucose and hypertonic glucose may relieve symptoms of this disease temporarily. Since 1952, cases of reversible low temperature blood agglutination have been reported. More detailed observations (571-577) of the nature of condensing elements have been made. According to presently available data, (571-582) megaloblastic anemia of infancy and nutritional macrocytic anemia of adults are not seen infrequently in China. Incidence of the latter type anemia is higher in the northwestern parts of China (578-581). True pernicious anemia is still seldom seen, reported only in a few instances (582-584).

Aplastic anemia seen in China is mostly the primary type (585-593), and the trial of cobalt chloride for its treatment has shown very good results in a few cases (594). Recently, splenectomy has been tried in Peking and Canton on individual cases that still show fair immediate short range results (595, 596). Treatment of this disease with traditional Chinese medicine methods has been initiated everywhere with good results (597). Although there have been very few reports on Mediterranean anemia, (598, 599) it is heard that its incidence in southern China is not infrequent, and there are individual cases in other areas that have not been reported. According to incomplete statistics, reports on 600 cases of leukemia have been seen during the last ten years (600-626). Whether or not this is expecting an absolute increase in the incidence of this disease in China awaits further clarification. The incidence of chronic lymphatic leukemia in China (2.67% among 600 cases) is much lower than that of chronic granular leukemia (30.8%). The incidence of chronic leukemia is close to that of acute leukemia (626). Compared with statistics obtained by the Peking Union Medical College (627) in the past, acute leukemia cases show a relative tendency toward increase which should be noticed. Several drugs used for the treatment of leukemia in other countries have seen application in China. These include various cell suppressing agents (nitrogen mustard, TEM, Myleran, etc.,) hormones, antimetabolite agents (6-mercaptopurine, antifolic acid), etc. These methods definitely slowed down the symptoms and prolonged life. The course of acute leukemia generally does not exceed six months, but many cases have lived one and a half years to two years after treatment by these methods. Research on the treatment of leukemia with traditional Chinese medicine has begun and some preliminary leads have been established (625).

Regarding the incidence of acute infectious lymphocytosis in other countries, there have not been many reports. In 1954, this disease was discovered in epidemic proportions at a nursery in the Peking suburbs where studies were made on the clinical changes, blood picture and epidemiology of this disease (628). In Shanghai, overall observation and analysis of 572 cases of infectious mononucleosis during an epidemic were made (629), and this showed various clinical types associated with inflammation of the respiratory tract, inflammation of the gastro-intestinal tract, skin rash, adenophyma, pneumonia, jaundice, encephalitis, typhus, parotiditis, enlarged gonads, malaria, etc.

With regard to hemorrhagic diseases, observations have been made on idiopathic purpura thrombopenica (630-632), purpura anaphylactica (633-639), hemophilia, pseudo-hemophilia, etc., (640) in recent years. Special attention has also been paid fibrinogenopenia by workers in the field of gynecology (641-643). Among the methods

used for examination of the blood clotting picture, the appraisal of several newly discovered coagulation factors, the classification of hemophilia(644-648), and the application of Coomb's test have all seen some progress.

Diseases such as local vascular endotheliosis(649,650), tropical eosinophilia(651-653), Loeffler's syndrome(654), multiple myeloma(655-665), polycythemia vera(666-668), etc., have also been reported. Clinical studies of congenital hyperhemoglobinemia have uncovered the fact that not only is the oxygen separation curve shifted to the left, but arterial oxygen saturation is also lowered(669). Understanding of the vascular purpuras has also been increased(670-677), and one case of rarely seen congenital sulfhemoglobinemia has been reported from Tientsin(678).

VI. Diseases of the Endocrine System and Diseases of Metabolism

The distribution of endemic goitre in China is quite extensive. After the Liberation, surveys were carried out in most of the provinces and prophylactic measures were initiated. According to focal surveys carried out in seven provinces including Hopei, the average incidence of this disease is 7.8%, with the incidence as high as 84% in some places and as low as 2.8% in others(679-690). The incidence of this disease is usually found among young age groups occurring mostly among women. Marriage, childbearing, nursing, etc., are all etiological factors(684,685,691). The chief cause of this disease is an iodine deficiency which is proved by analyses of the water source and foods consumed in a particular area(680,685,692). Besides the water source of an area being deficient in iodine, attention should also be given to other factors such as a comparatively higher calcium content and a lower magnesium content(681,685). Large scale prophylactic measures have been initiated on a general scale with some areas adding iodine to table salt(680,690), with others using iodized oils(689), potassium iodide(683,684), acupuncture(693), and traditional Chinese drugs(689). Therapeutic effectiveness is generally 70-80%. "Ying-liu-yuan" a goitre pill and "szu-hai-shu-yu-yuan" a well being inducing pill are both iodine containing drugs(694,695).

Hyperthyroidism is one of the high incidence diseases of the endocrine system. The proportion of its incidence is 0.47%(696) the total of both medical and surgical hospitalized patients, exceeded only by endemic goitre and diabetes, and occurring mostly among the female sex(696,697). Malignant exophthalmic cases are induced by pituitary stimulation of thyroid hormone, and such cases are considered for deep x-ray treatment of the pituitary while corticotropin and cortisone are also used(698). Cases of

exophthalmic goitre accompanied by limiting myxedema along the shin bone has also been reported(699-702). Hyperthyroidism complicated by cardiac irregularities or muscular symptoms are also seen. In the latter group of cases, the relationship between periodic paralysis and hyperthyroidism may be determined by clinical observation which shows that after recovery from thyroid disease, the paralysis also disappears(703,704). In gynecology and obstetrics, much attention has been given hyperthyroidism complicating pregnancy, and it is possible that pregnancy is a factor predisposing to hyperthyroidism(705). Treatment of this disease at present is still chiefly by subtotal thyroidectomy. Due to refinements in surgical techniques, pre-operative preparations, and post-operative care to forestall thyroid crisis, the safety margin of surgery has been greatly increased, and in some units, no deaths at all during and after surgery have been reported(706). Antithyroid drugs are now widely used in China, chiefly for preoperative preparations, though they are also used on cases not suited for surgery at times(707). From March 1958 to May 1959, treatment centers in Peking, Tientsin, Shanghai, Canton, Sian, etc., used radioactive iodine(131) to treat about 120 cases of hyperthyroidism of which 47 cases were followed up for 3 months to more than a year after treatment. The results showed that 36 cases (78%) obtained complete remission recovery, 11 cases obtained partial remission which called for continued treatment and none of them showed hypothyroidism(707). The effect of acupuncture and traditional Chinese drugs for treating hyperthyroidism has also been reported preliminarily(708,709). The therapeutic effect of liquid extract of "huang-yao-tzu" is quite obvious with the rapid recession or disappearance of disease symptoms and accompanied by a lowered basal metabolism. Among 26 cases that received the extract, only one case did not respond(710). The iodine content of "huang-yao-tzu" is quite small (19.8 milligrams/kilogram) and the assumption that its therapeutic effect possibly does not depend completely on the properties of iodine is a lead worth further probing(711). Among cases of hypothyroidism, most are cases of endemic cretinism, while those of adult myxedema are manifest in cardiac symptoms(712,713), and in an occasional case accompanied by carotenemia, unconsciousness may result from subnormal body temperatures(714,715).

The distribution of hypertrophic osteoarthropathy is found in several areas of northeastern and northwestern China, and the incidence of this disease in the epidemic areas is generally around 30%(716). After the Liberation, special prophylaxis stations for endemic diseases were established, and specialist groups or units were organized during 1951, 1954, 1955 and 1956. On the last instance, three Soviet specialists were invited to conduct surveys and studies on epidemiology, nutrition, bacteriology, pathology,

water analysis and clinical medicine. It has been determined that hypertrophic osteoarthropathy that is seen in northeastern China, crippler disease seen in northwestern China, Wu-lo-fu's disease found in the Soviet Union and Ch'ia-hsin-Pei-Ke's disease describe the same illness which is an endemic type of deforming osteoarthritis. Etiology of the disease has not been determined as analysis of the water in the endemic areas has not uncovered anything unusual. As Sporotrichiella have been isolated from food and water in the endemic areas, the coordination of this finding with epidemiological data and preliminary animal experiments points toward the Soviet theory of food ingested bacteremia(716,717). However, it is possible that the etiological factors of this disease are more complicated and require more study. While nutritional deficiencies may not be the chief etiological factor of this disease, they may exert a definite effect. Chief x-ray findings of this disease show early closure of the epiphyses, arrested development, and continued joint swelling and changes. Phalangeal changes may be grouped into three phases. Their early and marked appearance serve to be the basis for early diagnosis(718).

According to a 1958 survey of 3,532 occupational workers and their families in Peking, the incidence of diabetes is found to be 0.82%. Should dormant diabetes be included, the incidence is 1.16%(719). A Shanghai report shows that cases with this ailment make up 2.6-12.2% of total hospitalized patients or 14.1-28.3% of hospitalized medical cases, seen more often in members of the male sex between 40-60 years of age(720,721). That the symptoms of the Chinese patient with this disease are lighter is a clinical characteristic. Analysis of 922 cases from Shanghai shows 45.8% to be light cases, 36.1% to be medium cases, and 17.9% to be serious cases on the basis of describing the severity of this disease according to these three categories(721). Accompanying cardiovascular diseases are not often seen and when they do occur, they are seen as light cases. Coma from diabetic ketosis or acidosis is a serious complication of this disease and found among 3.9% of hospitalized diabetic cases. The chief predisposing factor here is infection, surgery, and gastro-intestinal obstructions(722). Infections complicating diabetes are tuberculosis (19.5%), skin carbuncles (7.8%), pyelonephritis (2.5%). In about half of the cases, treatment consists of diet control only, while the others require dietary control with use of insulin. Oral thiourea compounds are being used in various parts of China to treat diabetes, and according to data from Shanghai, such treatment is effective in 70-85% of cases so treated(723-725). Among traditional Chinese drugs, a pill of Rehmannia lutea, Maxim. with six other ingredients, a compound of Rehmannia lutea, Maxim, and acupuncture therapy have shown results after preliminary trial(725-731).

Chronic adrenal cortical insufficiency (Addison's disease) is seen more often comparatively. Due to improvements in examination methods, more light cases are discovered. The chief etiological factor is tuberculosis, and treatment with licorice compounds may result in partial compensation. Acute adrenal cortical insufficiency (Waterhouse-Friderichsen syndrome) is seen mostly among infants as a complication to meningococcal infection with a mortality rate as high as 72% (732). Hypercorticism is seen clinically occasionally chiefly as I - Cushing syndrome, though a few cases with the adrenogenital syndrome have also been reported (733, 734). The pathology of I? - Cushing syndrome is proved by surgery or pathological examination to be caused by bilateral adrenocortical hyperplasia chiefly, followed next by adenoma, then by carcinoma (734). Hyperpituitarism is evidenced most often by the incidence of acromegaly. Treatment consists chiefly of deep x-ray of the pituitary, and should damage to the optic field occur, surgery should be employed for removal of the pituitary. Hypopituitarism is seen clinically mostly as Sheehan's syndrome which may be classified into four type variations: (1) as pituitary hypoglycemia, (2) as pituitary adrenocorticism, (3) as pituitary myxedema, (4) as pituitary hypogonadism. Hormonal replacement therapy is seen to be therapeutically effective in most of the cases (679). As has been previously described, in the schistosomiasis endemic areas of China, pituitary dwarfism caused by schistosomiasis may be seen. In this type of dwarfism, healthy growth and development may be resumed after the schistosomiasis has been treated and brought under control (735). Other endocrine diseases such as chromaffinoma, hyperparathyroidism, diabetes insipidus, etc., have all been observed with deeper understanding than before the Liberation, and they have all been treated successfully with modern surgical and medical methods (679).

In the field of practical endocrinology, the Szechwan Medical College has conducted observations on the metabolism of related matter in cases with the I - Cushing syndrome and discovered the effect of protein on calcium and phosphorus metabolism (736), and the influence of vitamin C on heightened pituitary and adrenocortical activity (737). In animal experiments, it has also been noted that vitamin C will heighten hyperthermia resistance of animals in whom the adrenals have been removed. Among this type of animals, sufficient intake of salt and glucose render glycogen synthesis possible, as this kind of synthesis do not require participation of the adrenals (738). A deficiency of vitamin C not only affects the morphology and function of the adrenal cortex, it may also cause marked changes in liver weight (increase in fluid content) and lowered glycogen capacity. Use of corticotropin will result in a reduction of liver weight, a stable glycogen capacity together with a marked increase of fat content and a marked decrease of nitrogen. The mechanism of this phenomenon is not clear, but

based on the results of this experiment, attention should be paid the effect of vitamin C deficiency on the liver when corticotropin is being used for clinical purposes(739). Research on Chinese traditional drugs such as ginseng, and *Justicia gendassa*, L. explains the relationship of the pharmacological effect of these drugs with pituitary and adrenocortical stimulation(740,741). Preliminary studies of the tissue therapy method suggests the possibility of tissue fluid having a stimulating effect on the pituitary gland to stimulate the secretion of corticotropin which acts on the adrenal cortex(742). This is a problem requiring further research. Research on insulin wandering into the nervous system shows that while the regulation and control of insulin secretion are related to blood sugar levels, the regulatory function of the central nervous system is even more important and precise (743-745). The relationship between hormonal imbalance and the incidence and development of tumors have also been studied. Tumors of organs such as the ovaries, pituitary, adrenals, liver, etc., have been seen to appear in mice and rats as the result of hormonal imbalance. This sheds light on the etiological factors of certain tumors(746-751).

New techniques related to clinical endocrinology such as application of the blood eosinophil count to determine adrenal function(742-756), the determination of 17 - ketosteroids in urine(767-769), the intravenous drip test with 17 - hydroxy-corticosterone and 8 hour corticotropin(760), determination of coalesced iodine in serum protein, application of the radioactive isotope iodine¹³¹(764,766), determination of pituitary stimulation of sex hormones(767), examination of ovarian function, etc., have all seen clinical application. Certain endocrine preparations such as corticotropin, cortisone have also seen large scale application. Other preparations such as insulin, corticotropin, corticosterone, corticosterol, progesterone, testosterone, etc., are now manufactured experimentally or on a production bases(769).

VII. Occupational Diseases

Pulmonary silicosis is one of the diseases focused on by related industries. Before the Liberation, nothing whatsoever was done about this aspect, but the health units in most of the factory plants and mines have specialists tackling this problem of silicosis now. At present, most of them are equipped with facilities for x-rays and periodic physical examinations. From surveys in recent years, it may be seen that the ill effects of the production system on the worker's health in the past are markedly noted(770). For instance, in certain factory and mine areas where the incidence of silicosis is high, it has been observed that most of the cases are old workers with working histories of more than ten years(770).

Pulmonary tuberculosis oftentimes is a serious complication to this ailment(770-722). Since the beginning of the first Five Year Plan, the method of dry rock blasting has been prohibited on a national scale, and protective measures have been intensified. Furthermore, on the scene conferences have been called to integrate and evaluate preliminary experiences, and temporary methods of prevention and protection have been set up(773). With regard to research on this disease, on the scene surveys and laboratory studies have been initiated. The Workers' Health Research Laboratory in Tientsin has been the first to utilize sodium citrate in the treatment of silicosis, and preliminary results are noted in the improvement of symptoms(774). Sodium citrate has a definite prophylactic effect on experimental silicosis in animals(775). At the Ta-chi Shan Mines in Kiangsi province, work on treating silicosis with the combined methods of western medicine and traditional Chinese medicine are in progress(776). At present, clinical workers already have a deeper understanding of this disease, especially in the aspects of x-ray diagnosis and differential diagnosis, etc.(777). Clinical observation of even more cases of silicosis in the future, exploration and analysis of all factors affecting the incidence rate of this disease will provide dependable data for bringing this disease under early control and be the basis for evaluating the working capacity of affected cases(778,779).

Work on the prevention and treatment of cases of lead poisoning, especially the chronic and light cases, has received much attention. Besides the generally used diagnostic methods, the value(780-782) of fecal porphyrinuria and blood alkali concentration tests has also been probed. Various methods of treatment utilizing vitamin C and magnesium sulfate(783), vitamin C and rutin(784), sodium citrate(785,786) calcium complex of ethylenediaminetetraacetic acid etc., (787,788) have all been tried with good response. Of these, calcium complex of ethylenediaminetetraacetic acid is the most effective drug to date(787,788).

Clinical observations have also been made of individual cases of vanadium pentoxide poisoning(789). Poisoning is caused by accidental inhalation of the powdered dust of this catalyzing agent. The chief symptoms are itching of the nasal membranes, nasal stuffiness, watery discharge and other signs of irritation to the upper respiratory tract and the cornea of the eyes, and gastrointestinal, nervous and constitutional symptoms such as diarrhea, headache, drowsiness, clumsy movements of the lower limbs, etc. After five to seven days of rest, these symptoms will automatically subside.

Other work related to mercury poisoning(790), benzene poisoning (791), aniline poisoning(792,793) etc., concerns mostly aspects related to survey of incidence rate, clinical diagnosis, and treatment which will provide definite leads for preventive measures to be taken in the future.

Conclusion

Summation of all the previous paragraphs shows quite clearly the fairly great progress made by internal medicine in China under the leadership of the government and the Party during the ten years since the state was founded. Since 1958, after the technological revolution and the cultural revolution brought on by the Great Leap Forward, the results have been even more obvious. The practice of large scale preventive measures has also stimulated the progress of scientific techniques in medicine. While our work during the past ten years has established a sound foundation for further progress in the field of internal medicine in China, many mistakes are still inherent, and the health needs of the great mass of people are far from being met. The direction of future efforts, enlightened by the main path of socialism, under the guidance of the nation's cultural, educational, and health policies and based on the health of more than 600 million people, must be toward the great goal of eliminating pest and disease with great developments in the medical sciences. With the Party's leadership, the people's support, and assistance from our brother nations, we can successfully shoulder the tasks given us by the Party and the people to maintain their health and engage in medical research. In the first session of the Second All-China People's Congress, Premier Chou En-lai has pointed out in his government activities report: "The patriotic health movement centered around removal of the four pests and elimination of important diseases and the physical education movement aimed to increase the people's physical fitness have both seen great results in 1958, and efforts must be continued for their development in the future. In health activities, the course of the masses must be continued so that coordination between the specialists and the masses will change the Chinese people's health picture rapidly and effectively. Cooperation between the practitioners of western medicine and traditional Chinese medicine must be stressed, and they should be organized to work together for the people's health, to glorify China's medical tradition, and to develop the medical sciences." This is the outline for our present and future course of action.

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